16319

Maheshwar, from the town of Choli, 7 miles north of it. Maheshwar occupies a most picturesque position on the edge of the river. Broad *ghāts* sweep upwards towards the fort and the numerous temples which stud the shore, while behind them towers the lofty palace of Ahalyā Bai, the famous princess of the house of Holkar, temples, *ghāts*, and palaces being reflected in the wide stretch of deep quiet water at their feet.

Maheshwar is the Māhishmatī or Mahissatī of early days, the name being derived from the prevalence of buffaloes (*mahisha*). It is connected traditionally with the ubiquitous Pāndava brothers, and is mentioned in the Rāmāyana and Mahābhārata, while the Purānas refer to Mahishas and Mahishakas, the people of Māhishmatī. In Buddhist literature Māhishmatī or Mahissatī is mentioned as one of the regular stages on the route from Paithana (Paithan) in the Deccan to Srāvastī; these stages being Mahissatī, Ujjain, Gonaddha, Bhīlsa, Kausāmbhī, and Saketa. Cunningham has identified the Māhishmatī or Maheshwapura of Hiuen Tsiang with Mandlā in the Central Provinces; but the Chinese pilgrim states that he went from Jijhoti or Bundelkhand north or north-east to Maheshwapura, which is a wrong bearing for either Mandlā or Maheshwar, and may be a misstatement for south-west. Numerous places which the Māhishmatī Mahātmya enjoins pilgrims to visit can be identified in the neighbourhood.

The earliest historical connexion, however, is with the Haihaya chiefs, the ancestors of the Kalachuris of Chedi, who, from the ninth to the twelfth century, held much of the eastern part of Central India (*see* BAGHELKHAND). Their reputed ancestor, Kārtyavīryārjuna, is supposed to have lived here. The Haihayas were subdued in the seventh century by Vinayāditya, the Western Chālukya king, and Māhishmatī was incorporated in his kingdom. The Haihaya chiefs then served as governors under the Chālukyas, and are always designated as hereditary 'lord of Māhishmatī, the best of towns.' On the fall of Mālwā to the Paramāras in the ninth century, Maheshwar seems at first to have been one of their principal cities. It lost its importance later on, and during the time of the Muhammadan kings of Mālwā was regarded merely as a frontier post on the fords of the Narbadā. In 1422 it was captured by Ahmad I of Gujarāt from Hoshang Shāh of Mālwā. Under Akbar it was the head-quarters of the Choli-Maheshwar *mahāl* of the Māndu *sarkār* in the *Sūbah* of Mālwā, Choli being the civil administrative head-quarters and Maheshwar the military post.

About 1730 it passed into the possession of Malhār Rao Holkar, but did not become a place of importance until 1767, when Ahalyā Bai, on the death of Malhār Rao, assumed the reins of government and selected Maheshwar as her capital. Under her auspices it rapidly became a [illegible] the first importance, politically and commercially, while its

appearance was improved by the erection of numerous temples and palaces. Tukojī Rao, who succeeded in 1795, maintained Maheshwar as the capital, but during the confusion which followed his death in 1797 its prosperity rapidly declined. In 1798 Jaswant Rao Holkar plundered the treasury, and during his stay here lost his eye by the bursting of his matchlock while sitting on the bank of the Narbadā amusing himself with firing at a lighted torch floating on the river. Maheshwar continued to decline in importance, as Jaswant Rao on his accession to power resided chiefly at Rāmpura and Bhānpura; and, after his death in 1811 and the Treaty of Mandasor in 1818, Indore finally became the real as well as the nominal capital. From 1819 to 1834 Harī Rao Holkar was confined in the fort. Malcolm states that in 1820 the town still had 3,500 houses, which would give a population of about 17,000 persons.

There are many buildings of interest, though none of any great age. The fort, as it exists at present, is of Muhammadan foundation, but an older structure must have stood there in Hindu days. Some mosques with Muhammadan records, dated in 1563, 1682, and 1712, stand in it. Among the numerous temples and shrines, the most important is the cenotaph of Ahālyā Bai. A fine flight of steps leads up from the river to the richly carved shrine, which contains a *lingam* with a life-size statue of Ahalyā Bai behind it. An inscription records that this shrine and *ghāt* to the memory of Ahalyā Bai, who resembled the Ahalyā of ancient days (i.e. the wife of Gautama Rishī), and Tukojī, who is designated the great and generous *sūbahdār*, were commenced by Jaswant Rao Holkar in 1799 and completed in 1833 by Krishnā Bai his wife. Other notable buildings are the shrine of Vithoba or Itojī, Jaswant Rao's brother, and the palace with the family gods of the Holkars.

Maheshwar is famous for the manufacture of a special kind of coloured *sārīs* and silk-bordered *dhotīs*, which are exported in some quantity. It contains a school, a hospital, and a State post office.

Mahespur.—Town in the Bangaon subdivision of Jessore District, Bengal, situated in 23° 21′ N. and 88° 56′ E., on the Kabadak river. Population (1901), 4,180. Mahespur was constituted a municipality in 1869. The income during the decade ending 1901–2 averaged Rs. 3,600, and the expenditure Rs. 2,700. In 1903–4 the income was 3,400, mainly from a tax on persons (or property tax); and the expenditure was Rs. 2,600.

Mahī (the *Mophis* of Ptolemy and *Mais* of the *Periplus*).—River of Western India, with a course of from 300 to 350 miles and a drainage area estimated at from 15,000 to 17,000 square miles. It rises in the Amjherā district of the Gwalior State, 1,850 feet above sea-level (22° 52′ N. and 75° 5′ E.), and flows for about 100 miles through the

south-western corner of the Central India Agency, at first north, next west, and lastly north-west, passing through the States of Gwalior, Dhār, Jhābua, Ratlām, and Sailāna. It then enters Rājputāna and flows in a northerly direction with a somewhat tortuous course, intersecting the eastern half of Bānswāra State, till it reaches the Udaipur frontier, where it is soon turned by the Mewār hills to the south-west, and for the rest of its course in Rājputāna it forms the boundary between the States of Dungarpur and Bānswāra. It now passes on into Gujarāt, and during the first part of its course there flows through the lands of the Mahī Kāntha and Rewā Kāntha States. It then enters British territory, and separates the Bombay District of Kaira on the right from the Pānch Mahāls and Baroda on the left. Farther to the west, and for the rest of its course, its right bank forms the southern boundary of the State of Cambay, and its left the northern boundary of Broach District. Near Bungra, 100 miles from its source, the Mahī is crossed by the old Baroda-Nīmach road; and here the bed is 400 yards wide, with a stream of 100 yards and a depth of one foot. The Kaira section of the river is about 100 miles in length, the last 45 miles being tidal water. The limit of the tidal flow is Verākhāndi, where the stream is 120 yards across and the average depth 18 inches. About 30 miles nearer the sea, close to the village of Dehvān, the river enters Broach District from the east, and forms an estuary. The distance across its mouth, from Cambay to Kāvi, is 5 miles. The Mahī is crossed by the Bombay, Baroda, and Central India Railway at Wasad, and by the Godhra-Ratlām Railway at Pāli. During flood time, at spring-tides, a bore is formed at the estuary, and a wall-like line of foam-topped water rushes up for 20 miles, to break on the Dehvān sands.

The bed of the Mahī lies so much below the level of the land on either side of its banks that its waters cannot readily be made use of for irrigation. In fair weather the river is fordable at many places in the Bombay Presidency—at Dehvān, Gajna, Khānpur, and Umeta, for instance—and always in its upper course through Rājputāna, except in the rainy season, when its waters rise to a great height.

According to legend, the Mahī is the daughter of the earth and of the sweat that ran from the body of Indradyumna, king of Ujjain. Another legend explains the name thus. A young Gūjar woman was churning curds one day. An importunate lover, of whom she had tried to rid herself, but who would not be denied, found her thus engaged, and his attentions becoming unbearable, the girl threw herself into the pot. She was at once turned into water, and a clear stream flowed from the jar and, wandering down the hill-side, formed the Mahī or 'curd' river. A more probable derivation, however, is from the name of the lake whence it springs. This is often called the Mau or Mahu, as well as the Mendā. It is regarded by the Bhīls and the

Kolīs as their mother, and the latter make pilgrimages to four places on its waters—Mingrad, Fāzilpur, Angarh, and Yaspur. The height of its banks and the fierceness of its floods; the deep ravines through which the traveller has to pass on his way to the river; and perhaps, above all, the bad name of the tribes who dwell about it, explain the proverb: 'When the Mahī is crossed, there is comfort.'

It is interesting to note that this river has given rise to the terms *mehwās*, a 'hill stronghold,' and *mehwāsī*, a 'turbulent or thieving person.' The word was Mahīvāsī, 'a dweller on the Mahī,' and in Mughal times was imported into Delhi by the army, and is used by Muhammadan writers as a general term to denote hill chiefs, and those living in mountain fastnesses. A celebrated temple dedicated to Mahādeo at Baneshar (Rājputāna) stands at the spot where the Som joins the Mahī, and an important and largely attended fair is held here yearly.

Mahidpur.—*Zila* and town in Indore State, Central India. *See* MEHIDPUR.

Mahī Kāntha, The (or 'Banks of the Mahī').—Group of States forming a Political Agency under the Government of Bombay, lying between 23° 14′ and 24° 28′ N. and 72° 40′ and 74° 5′ E., with a total area of 3,125 square miles. It is bounded on the north-east by the Rājputāna States of Udaipur and Dungarpur; on the south-east by Rewā Kāntha; on the south by the British District of Kaira; and on the west by the State of Baroda, Ahmadābād District, and the country under the Pālanpur Agency. The Mahī Kāntha territory is subject to a number of chiefs, of whom the Mahārājā of Idar is by far the most important. In May, 1877, these chiefs were classified into seven divisions, according to the extent of their jurisdiction.

The Native State of Idar covers more than half the territory; eleven other States are of some importance; and the remainder are estates belonging to Rājput or Kolī Thākurs, once the lawless feudatories of Baroda, and still requiring the anxious supervision of the Political Officer. Statistics for all the States and estates that form the Agency are shown in the table on the two next pages.

Physical aspects.

Mahī Kāṇtha includes tracts of land differing widely in character and appearance. In the north and east the country is rough and wild, broken by ranges of steep well-wooded hills, of which the most notable are Ghahuns, Kalaroo, and Rojmalno in Idar; Boda Malvalo and Ghahuno in Pol; Arasur in Danta; and Taranga and Amba Vani in Ghodvāda. To the south and west the country is level, well wooded, and most of it cultivated. With a well-marked fall from the north-east to the south-west, the Agency is thoroughly drained. The Saraswatī river, for about 40 miles, passes close to, and almost parallel with, the north-west boundary.

General Statistics of each State in the Mahī Kāntha Agency

State.	Caste, tribe, or race of the ruling chief.	Area in square miles.	Number of villages.	Population (1901).	Revenue (1903–4).		Tribute.	
					From land.	Total.	Amount.	To whom payable.
1st Class State.					Rs.	Rs.	Rs.	
Idar	Rājput	1,669	884	168,557	3,36,633	5,92,514	30,340	Gaikwār.
2nd Class States.								
Pol	Rājput	135	46	3,959	10,300	17,661	—	—
Dānta	"	347	168	15,262	18,000	42,727	514 2,371 500	Idar. Gaikwār. Pālanpur.
3rd Class States.								
Mālpur	Rājput	97	59	8,065	12,732	22,808	430 280 396	The British. Gaikwār. Idar.
Mānsa	"	25	12	15,936	46,337	66,267	11,754	Gaikwār.
Mohanpur	"	89	52	10,040	12,126	22,773	4,750 2,245	" Idar.
4th Class Tālukas.								
Varsora	Rājput	11	5	3,656	15,902	18,871	1,583	Gaikwār.
Pethāpur	"	11	3	5,753	11,064	18,479	8,632	"
Ranāsan	"	30	19	3,183	8,022	9,018	750 373 3	Idar. Gaikwār. The British.
Punādra	Kolī, converted to Islām.	11	11	2,662	11,220	15,598	375	Gaikwār.
Khadāl	"	8	13	2,215	7,900	16,440	1,751 250	" Attarsumba.
Ghorāsar	Kolī	16	15	6,219	13,192	23,415	3,501 488	Gaikwār. Kaira.
Katosan *	"	10	6	5,510	17,808	26,617	4,893	Gaikwār.
Ilol	"	19	5	3,806	15,305	20,982	428 1,863 17	Idar. Gaikwār. Ahmadnagar.
Amliyāra	"	60	32	7,227	19,754	27,672	317	Gaikwār.
5th Class Tālukas.								
Valāsna	Rājput	21	10	2,749	4,507	5,953	280	Gaikwār.
Dābha	Kolī, converted to Islām.	12	9	1,307	3,871	4,379	150 53	" Amliyāra.
Vāsna	Rājput	10	4	4,494	6,621	10,631	3,109	Gaikwār.
Sudāsna	"	32	21	5,269	6,289	10,781	1,036 361	" Idar.
Magori	"	23	27	1,527	2,864	5,056	93	"
Varāgām	"	28	21	2,121	4,129	5,841	—	—
Sāthamba	Kolī	18	22	3,022	3,360	6,146	561 401 127	Bālāsinor. Gaikwār. Lunāvāda.
Rupāl †	Rājput	16	13	3,113	3,585	7,045	1,165 362	Gaikwār. Idar.
Dadhālia †	"	28	12	2,619	1,707	3,689	699 611	Gaikwār. Idar.
6th Class Tālukas.								
Ramās ‡	Muhammadan	6	9	865	2,279	2,623	158	Gaikwār.
Bolundra ‡	Rājput	6	5	740	1,941	2,499	134	Idar.
Likhi §	Kolī	9	5	959	2,093	2,512	—	—
Hadol §	"	27	19	2,665	2,088	3,983	113 41	Gaikwār. Idar.
Gābat (7th Class) ‡	"	10	9	694	[illegible]	2,861	43	"

* The villages of Nandasa, Jakāsna, Ajabpura, Gamanpura, and Jotāna belong to the chief of Katosan. But their liability for tribute to the Gaikwār is separately fixed, and the respective amounts payable by them are as follows: Rs. 430-14-0, Rs. 623-4-5, Rs. 96-12-0, Rs. 139-10-9, and Rs. 3,058-1-11.

† These two *tālukas* had jurisdictional powers, of which they were deprived owing to maladministration. They were then placed under the jurisdiction of Sābar Kāntha *thāna*.

‡ The *tālukas* of Ramās, Gābat, and Bolundra are under Government management during the minority of their chiefs. The first two are in charge of the *thānādār* of Vātrak Kāntha, and Bolundra is under Sābar Kāntha.

§ The chiefs of Likhi and Hadol are non-jurisdictional *tālukdārs*. Likhi is included in Sābar Kāntha and Hadol in Gadhwāra *thāna*.

General Statistics of each State in the Mahī Kāntha Agency (*contd.*)

State.	Caste, tribe, or race of the ruling chief.	Area in square miles.	Number of villages.	Population (1901).	Revenue (1903-4). From land.	Revenue (1903-4). Total.	Tribute. Amount.	Tribute. To whom payable.
					Rs.	Rs.	Rs.	
Sābar Kāntha *Thāna* :—								
Derol (6th Class)	Kolī . . .		2	837	1,560	1,823	513 47	Gaikwār. Idar.
Kherāvāda "	" . . .		4	804	3,302	3,758	303 93	Gaikwār. Idar.
Kadoli "	" . . .		2	931	2,544	3,782	513 93	Gaikwār. Idar.
Vakhtāpur "	" . . .	69	4	1,744	5,075	5,788	1,118 486	Gaikwār. Idar.
Prempur "	" . . .		5	1,694	3,512	3,991	187 47	Gaikwār. Idar.
Dedhrota "	" . . .		2	725	1,685	2,203	699 74	Gaikwār. Idar.
Tājpuri "	" . . .		7	1,574	3,186	4,096	699 186	Gaikwār. Idar.
Hāpa "	" . . .		2	838	2,656	3,974	1,025 219	Gaikwār. Idar.
Gadhwāra *Thāna* :—								
Satlāsna (6th Class)	" . . .		26	4,928	2,500	4,918	2,794	Gaikwār.
Bhālusna "	" . . .		9	2,226	1,000	1,277	1,163	Idar.
Timba (7th Class)	" . . .		5	1,675	700	935	50	"
Umari "	" . . .	97	1	1,021	350	565	*	*
Motā Kotarna "	" . . .		3	820	400	576		
Chandap † . . .	. . .		4	588	546	546	71 217	Gaikwār. Idar.
Katosan *Thāna* :—								
Maguna (7th Class)	Kolī . . .		5	3,235	11,763	11,959	892	Gaikwār.
Tejpura "	" . . .		3	1,034	3,500	3,500	308	"
Virsoda "	" . . .		1	718	1,251	1,326	447 120	" Pātan.
Pālej "	" . . .		3	1,033	4,600	4,906	399	Gaikwār.
Deloli "	" . . .		1	800	2,852	3,095	256	"
Kāsalpura "	" . . .		1	307	2,391	2,391	48	"
Memadpura "	" . . .	56	1	449	1,800	1,800	175	"
Rāmpura "	" . . .		1	353	1,752	1,901	49 50	" Pātan.
Ijpura "	" . . .		1	342	3,051	3,051	239	Gaikwār.
Rānīpura "	" . . .		1	199	1,935	1,998	—	—
Sānthal ‡ . . .	. . .		3	3,356	§	§	1,774	Gaikwār.
Gokalpura ‡ . . .	. . .		1	184	‖	‖	42	"
Muljī-nā-pura ‡ . .	. . .		1	220	¶	¶	25	"
Bāvisi *Thāna* ** . . .	. . .	96	93	28,459	43,033	46,733	29,564	"
Vātrak Kāntha *Thāna* :—								
Nirmāli †† . . .	. . .	10	6	1,959	1,628	2,411	1,125 (Nirmāli and Jher together)	Gaikwār.
Jher †† . . .	. . .	12	14	2,705	2,000	3,062		
Sadra Bazar . . .	. . .	1	1	1,683	1,142	5,620	—	—
		3,125	1,729	361,545	7,15,797	11,47,826	1,34,411	

* Subordinate to Satlāsna and Bhālusna, and included in their tribute.

† Chandap is a *matādāri* village and has no chief.

‡ These three villages have no separate chief of their own. Sānthal belongs to the *bhāyāt* of the chief of Katosan and the shareholders of Deloli, Kāsalpura, &c. Muljī-nā-pura belongs to the shareholders of Deloli, and Gokalpura to the shareholders of Tejpura.

§ Co-shared village. ‖ Included in Tejpura. ¶ Included in Deloli.

** Is constituted of 24 chief *matādāri* villages and 72 sub-villages, including Barmuada.

†† Nirmāli and Jher are shared by the Gaikwār and the Miyān of Mandwa, and are administered by the

The Sābarmatī river flows through Mahī Kāntha for a distance of 60 miles, crossing the Agency from north-east to south-west for 40 miles, and skirting its western boundary for 20 miles. The Hāthmati river passes through Mahī Kāntha for about 35 miles, and joins the Sābarmatī below Ahmadnagar. The Khāri, the Meshwa, the Mājam, the Vātrak, and other streams also drain the country. Only the waters of the Hāthmati have been used for irrigation on a large scale. Between 1869 and 1873 a weir was built across the Hāthmati close above Ahmadnagar, and so much of its water as was not wanted for the town and other places on its bank was taken to feed a canal for irrigating the Parāntīj *tāluka* of Ahmadābād District. Though it has no natural lakes, Mahī Kāntha is well supplied with ponds and wells. The Rānī Talao has an area of 94 acres, and a greatest depth of 17 feet; the Karmābāwi Talao, area 134 acres, greatest depth 15 feet; the Bābsur Talao, area 182 acres, greatest depth 15 feet.

With the exception of Idar, which was geologically surveyed in 1902, the Mahī Kāntha States have never been visited by any geologist, and nothing definite can be said about their geological constitution, further than that it appears to be extremely varied and complex. One of the finest building stones in India is the calcareous sandstone used in the mosques, temples, and palaces of Ahmadābād, which is quarried at Ahmadnagar, Savgarh, and Parbada in the Idar State, and exported to considerable distances. No details as to its mode of occurrence have ever been ascertained; but it is suggested, from its resemblance to certain rocks of Gujarāt and Central India, that its age may be Cretaceous. The best lime obtainable in India is made from a limestone occurring at Betali in the mountainous country about Idar, which constitutes the material used in preparing the beautiful stucco so largely used in the buildings at Delhi. Granite, gneiss, and crystalline marble are also said to occur.

Of trees, Mahī Kāntha has the *mahuā*, the mango, the banyan, the *āsopālav*, the *khākhra*, the wood-apple, the *nīm*, and the teak. The wild animals, many of which are becoming rare, are tiger, leopard, bear, wolf, wild hog, hyena, jackal, and fox. Deer include the *sāmbar*, the spotted deer, the antelope, the Indian gazelle, and the *nīlgai*. The otter, hare, monkey, and wild cat are common. Snakes, both harmless and venomous, abound. The chief game-birds are jungle-fowl, wild duck, snipe, green pigeon, rock grouse, partridge, bustard, and florican. The rivers are well stocked with fish.

Except in several parts situated in the north and north-east, the climate of Mahī Kāntha is fairly good. The greatest heat is generally in the beginning of April, and the greatest cold in January. The temperature rises to 110° in May and falls to 50° in January. The annual rainfall at Idar averages 34 inches.

History.

The earliest settlers, both rulers and ruled, were the tribes now known as Bhīls and Kolīs. The next comers were Rājputs, whose arrival in Mahī Kāntha seems to date from the establishment of Arab power in Sind and the fall of Vallabhinagar in the eighth century. In the eleventh century the Musalmān destruction of Nagar Tatta in Sind drove out the Paramāra Rājputs; and in the next two centuries the farther advance of Musalmān power forced many other Rājput tribes, such as the Paramāras of Chandrāvati, the Rāthors of Kanauj, and the Chāvadas of Anhilvāda, south into the Mahī Kāntha hills. To the Chandrāvati Parmārs belong the houses of Mohanpur, Ranāsan, Rupāl, Varāgām, and Bolundra; to the Kanauj Rāthors belong the houses of Pol, Mālpur, Valāsna, and Magori; and to the Chāvadas of Anhilvāda belong the houses of Mānsa and Varsora. By intermarriage with the Kolīs many of these Rājputs lost caste, keeping only the names of the clans—Makvāna, Dabi, and Bāriya—to which their forefathers belonged. In the fifteenth century came the Vāghela houses of Pethāpur and Posina (in Idar).

Jai Chand, the last Rāthor Rājput sovereign of Kanauj, is said to have left two sons; the first founded the present family of Mārwār, and the second in 1257 established himself at Idar. For four centuries the chiefs of the line bore the title of Rao of Idar; but the last independent prince, Jagannāth, was driven out by the Muhammadans in 1656. (For further history of Idar, *see* IDAR STATE.) The family retired into the hills, fixed their head-quarters at Pol, and were known as the Raos of that mountainous tract. The present chief is descended from them. Dānta is said to have been established in 809, but its history is mainly a record of continual struggles with Idar. In the fifteenth century Mahī Kāntha fell under the sway of the Ahmadābād Sultāns, and on their decline under that of the Mughal emperors. The Mughals only collected occasional tribute by moving a large force into the territory. The Marāthās followed the Mughals, and every two or three years sent their *mulk-giri* or 'tribute-collecting army' into the region. In 1811, when the Marāthā power was declining, the British Government stipulated to collect and pay over to the Gaikwār the yearly tribute. In 1820 the British Government finally took over the management of the Mahī Kāntha territory. They agreed to collect and pay over the tribute free of expense to Baroda, while Baroda was pledged not to send troops into the country, or in any way to interfere with the administration. Since 1820 disturbances have occurred more than once. From 1833 to 1836 there were local tumults, which required an armed force for their suppression. In 1857–8 a display of force again became necessary, when the registration of arms and the disarming of part of the people took place. A smart engagement was fought at Taringa hill, and the town of Mondeti was carried by assault.

In 1867 a disturbance arose at Posina. Peace remained unbroken until 1881, when the Bhīls of Pol rose against their chief and extorted from him a settlement of their claims.

Population.

The population of Mahī Kāntha at the last four enumerations was: (1872) 447,056, (1881) 517,485, (1891) 581,568, and (1901) 361,545. The enormous decrease of 38 per cent. during the last decade was due to famine. Mahī Kāntha contains 6 towns and 1,723 villages, and supports 115 persons to the square mile. The towns are MĀNSA, IDAR, PETHĀPUR, VADĀLI, AHMADNAGAR, and SĀDRA. Hindus form 90 per cent. of the total, Muhammadans 5 per cent., Jains 3 per cent., and aboriginal tribes number 6,367. Among the Hindus, Brāhmans number 27,000, Rājputs 15,000, Vānīs 9,000, Kunbīs (cultivators) 68,000, Kolīs (labourers) 92,000, Kumbhārs (potters) 9,000; and among low castes, Chamārs 15,000, and Dhers 14,000. Muhammadans are chiefly Momins (4,000), formerly weavers but now mostly cultivators, and Ghānchis (3,000) or oilmen. The aboriginal tribes are chiefly Bhīls (18,000), of whom 12,000 were entered as Hindus at the recent Census, though probably not differing in religion from their animistic brethren.

The BHĪLS are the most remarkable of the Mahī Kāntha tribes. They are hardy and enterprising, and as sagacious in daily conduct as they are secret and speedy when on one of their robbing expeditions. They speak a dialect composed of Rājāsthānī and Gujarātī, which is extremely difficult to understand; worship stones covered with red lead and oil; believe firmly in witchcraft, and are much addicted to witch-swinging. Ordinarily among the Mahī Kāntha Bhīls the woman chooses her own husband. At the Posina fair in the north, if a Bhīl succeeds in taking the woman he desires to marry across the river without being discovered, the parents of both agree to the marriage. If he is found out before he has crossed the river, the man is severely handled by the father of the girl. The *ver* or Bhīl vendetta usually takes the form of cattle-lifting. No Bhīl will disregard the *kulki* or cry which proclaims that a tribesman is in trouble. Some Bhīls, taking the name of *bhagats* or ascetics, have become the followers of a Bhīl teacher, Kheṛādi Surmal. This teacher is a follower of the Hindu god Rāma (the seventh incarnation of Vishnu), and forbids eating the flesh of domestic animals, the drinking of liquor, and the committing of offences. Like a high-caste Hindu, the *bhagat* does not partake of food without bathing, puts a red mark on the brow, and ties a yellow strip of cloth round the turban. The Bhīls formerly treated these *bhagats* as outcastes, and caused them much annoyance. This the authorities put a stop to. In 1880 the *bhagats* were estimated at 800, and not one of their number had been accused of any crime. They are now no longer regarded as outcastes, and are increasing in number.

The Census of 1901 showed that 59 per cent. of the entire population are engaged in agriculture; commercial and professional classes include 4 per cent. and 1 per cent. respectively.

Agriculture.

The soil is of two kinds, sandy and black, both of which are rich. The south and west of the Agency are level. Most of the tillage is for *kharīf* or rainy season crops. Of the total area of 3,125 square miles, more than 850 square miles, or 27 per cent., are cultivable. The chief crops grown are wheat, rice, *bājra*, gram, cotton, sesamum, rapeseed, and sugar-cane. The Mahī Kāntha bullocks are smaller and weaker than those of North Gujarāt; the buffaloes are also inferior. In the valley of the Saraswatī there is a large irrigated area. The waters of the Hāthmati have been used for irrigation, and the canal from that river is worked by Government. Elsewhere irrigation is carried on chiefly from wells and ponds.

Though it contains large tracts of more or less wooded hills, chiefly covered with bamboos, brushwood, and teak, Mahī Kāntha has no important revenue-yielding forests. The teak is generally uncared for, and cut down before it grows to any size. The chief products are gum and honey. At Ahmadnagar, Savgarh, and Parbada in the Idar State a very superior calcareous sandstone is quarried, which is much used for ornamenting public buildings.

Trade and communications.

Weaving is carried on at Ahmadnagar and Pethāpur. The finest weaving is the work of the Musalmāns of the Momin sect. The cloth made by them is woven from silk and cotton yarn, both country and English. The best dyers are at Pethāpur and Vāsna, who colour and export coarse English cloth. Since the famine many of the people engaged in local industries have emigrated to the neighbouring cities to find work in the mills. Idar, Ahmadnagar, and Pethāpur were once famous for their arms and cutlery. The manufacture of arms is now forbidden, and the cutlery industry is declining.

Considerable trade was formerly carried on between Gujarāt and Mewār through Idar, Pol, and thence to Mārwār. Pethāpur and Vāsna export dyed cloth worth over a lakh annually. The chief local trade centres are Mānsa, Pethāpur, Sādra, Idar, Ahmadnagar, and Katosan. The most important fairs are those at Sāmālji and Brahmakhed.

The Mahī Kāntha Agency is traversed by three railways, the Ahmadābād-Parāntīj, the Gaikwār's Mehsāna, and the Vijāpur-Kalol-Kadi line. The first passes by Dabhoda, Rakhial, and Ahmadnagar; the second by Jotana and Katosan; and the third has stations at Limbodra and Radheja, serving the Mahī Kāntha towns of Mānsa, Pethāpur, and Sādra. There are 41 miles of metalled and 89 miles of unmetalled roads in the Agency, the most important being the Idar-Ahmadnagar road in Idar, the Danta-Ambajī road, the Sādra-Dabhoda road, and the

Jhālod-Modasa road in Varāgām. Avenues of trees are maintained for 3 miles. Post offices are situated at Idar, Ahmadnagar, Sādra, and Mānsa. Telegraph offices have been recently opened at Sādra, Idar, and Ahmadnagar.

Famine.

Severe famines occurred during the last two centuries in 1791, 1813, and 1899–1900, besides scarcities in 1825 and 1834. The recent famine of 1899–1900 was of an unprecedented nature and pressed very severely on the people. Relief works were opened and poorhouses were established. At the height of the famine there were 37,249 persons on relief works and 6,251 in receipt of gratuitous relief. Advances and remissions were granted, and the *tālukdārs* were assisted with loans from Government for relief and other purposes.

Administration.

At the head of the Agency is the Political Agent, who has three Assistants. The *tālukas* up to the third class are under his direct supervision. The other *tālukas* and the five *thānas* or groups of petty estates are divided between his Assistants. The Assistant Political Agent has also the charge of the Agency police. The Personal Assistant has the charge of all estates and *tālukas* attached by the British Government during the minority of the holders or by reason of mismanagement. The Native Assistant has charge of the Sādra civil station, the treasury, and the jail. Civil and criminal justice is administered by the chiefs according to the class to which they belong. The Mahārājā of Idar is a first-class chief, exercising full powers of jurisdiction, both civil and criminal (in the case of capital offences committed by British subjects with the consent of the Political Agent). The chiefs of the second class exercise jurisdiction in civil cases up to Rs. 20,000 and full jurisdiction in criminal cases, subject to confirmation by the Political Agent in capital cases, and with the same limitation as Idar in regard to British subjects. Chiefs of the third class exercise jurisdiction in civil cases up to Rs. 5,000, and in criminal cases up to a penalty of two years' imprisonment and Rs. 1,000 fine, with a limitation in regard to British subjects; and so on for the remaining four classes, with gradually decreasing powers. The Political Agent is vested with the powers both of a Sessions Judge and of a District Magistrate. As far as practicable, the Civil and Criminal Procedure Codes and the Indian Penal Code are in force, but in the wild Bhīl tracts on the Rājputāna frontier all offences are dealt with under rules based on local customs. In 1838 Captain (afterwards Sir James) Outram instituted border *panchāyats* for the settlement of the numerous blood-feuds and disputes between the wild Bhīls on the Mahī Kāntha and Rājputāna frontiers. The system, which is one of money compensation for crime, has been found very effective in preventing reprisals and maintaining peace. In 1873 the rules were revised, providing for

the regular assembling of the courts under a British officer as president, aided by two assessors from each of the States concerned. In 1878 arrangements were concluded for the extradition of all criminals except Bhīls, and of *bhopās* or witch-finders among the Bhīls, between Mahī Kāntha and Rājputāna. The commonest forms of offence are theft, robbery, dacoity, cattle-stealing, hurt, and murder.

Formerly the land revenue was farmed, but it is now collected direct from the cultivators. Except in a portion of the Idar State, no survey settlement has been introduced. The entire revenues of the States of Mahī Kāntha in 1903–4 were returned at $11\frac{1}{2}$ lakhs, the chief sources being land revenue, excise, and judicial revenue. Prior to the famine of 1899–1900 the gross revenues exceeded 12 lakhs. The expenditure in 1903–4 amounted to 11 lakhs. The total tribute payable by different States amounts to nearly $1\frac{1}{2}$ lakhs. The Gaikwār, as superior overlord, receives more than a lakh; but of this amount about a lakh has been credited to Government towards police expenses since the withdrawal of the contingent maintained by the Gaikwār. The chief of Idar receives about Rs. 8,600, and other Gujarāt States (who receive tribute from minor allied feudatories in the Agency) Rs. 2,166. The whole of the tribute is collected by the British Government and handed over to the superior chiefs entitled to receive it. In 1878–9 measures were taken in most of the Mahī Kāntha States for the suppression of illicit stills, in which *mahuā* liquor is manufactured; but the cheapness of this liquor is still the curse of the Mahī Kāntha States, as the Bhīls and Kolīs cannot resist the temptation to drunkenness.

There are two distinct police forces in the Agency, the Agency police and the State police. In 1903–4 the strength of the former was 121 mounted and 393 foot, and the latter consisted of 175 mounted and 915 foot. There are 39 jails and lock-ups, with a daily average of 210 prisoners.

Local funds are collected and placed at the disposal of the Political Agent. The receipts of the Agency Local funds in 1903–4 amounted to more than one lakh, and the expenditure was Rs. 96,000. These funds are known as the (1) Agency general fund, made up of contributions from the States and judicial receipts of the Agency courts, and expended on education, justice, and vaccination; (2) Sādra Bazar fund, composed of taxes and octroi, and expended on education and conservancy; (3) Scott College fund, composed of subscriptions from the States; and (4) the Jubilee Pauper Patient Endowment fund, composed of subscriptions from the States and private persons for the benefit of helpless patients in the dispensary.

There is a *tālukdāri* school, known as the Scott College, at Sādra, with 27 boys on the rolls, built at a cost of over half a lakh, for

the sons of the Rājās and the Thākurs who are unable to attend the Rājkumār College in Kāthiāwār. The total number of schools in the Agency in 1903–4 was 117, with an attendance of 6,315 pupils. The total expenditure was Rs. 30,189. The 4 Bhīl schools managed by the missionaries are attended by over 117 pupils. Of the total population, 22,641, or 6 per cent. (12 per cent. males and 0·3 females), were recorded as literate in 1901.

Nineteen dispensaries were maintained in 1903–4, at which 59,228 patients were treated. The total cost was Rs. 22,605. About 10,000 persons were vaccinated in the same year.

Māhīm Tāluka.—Western *tāluka* of Thāna District, Bombay, lying between 19° 29′ and 19° 52′ N. and 73° 39′ and 73° 1′ E., with an area of 409 square miles. It contains one town, KELVE-MĀHĪM (population, 5,699), the head-quarters; and 187 villages. The population in 1901 was 82,562, compared with 85,841 in 1891. The density, 202 per square mile, is slightly below the District average. Land revenue and cesses in 1903–4 amounted to more than 1·9 lakhs. A range of forest-clad hills divides the *tāluka* from north to south; and in the north-east corner are high hills with jagged peaks, of which Asheri is the chief. In the south-east, Takmak peak rises to 2,000 feet above sea-level. The land to the west of the central range is low, flat, and broken by swamps and tidal creeks. The climate is pleasant on the coast during the hot season; but during the rest of the year both the coast and the interior are notoriously malarious. The rainfall (63 inches) is much below the District average. The water-supply is fair. The Vaitarna river, which flows through the *tāluka*, is navigable by native craft of about 25 tons. Hot springs, similar to those at Vajrābai in Bhiwandi, are found at Sativli and are supposed to flow from the same source.

Māhīm.—Town in Thāna District, Bombay. *See* KELVE-MĀHĪM.

Mahim.—Town in the District and *tahsīl* of Rohtak, Punjab. *See* MAHAM.

Mahlaing.—North-western township of Meiktila District, Upper Burma, lying across the Meiktila-Myingyan railway, between 20° 54′ and 21° 19′ N. and 95° 28′ and 95° 52′ E., with an area of 426 square miles. The population was 55,868 in 1891, and 62,890 in 1901, distributed in 250 villages, Mahlaing (population, 2,251), a local trade centre, situated on the railway near the Myingyan border, being the head-quarters. The township, together with the adjoining Natogyi township of Myingyan District, constitutes the chief cotton-producing area in Burma, and consists of typical cotton country, dry and undulating. In 1903–4 the area cultivated was 143 square miles, including 31 square miles under cotton; and the land revenue and *thathameda* amounted to Rs. 1,23,000.

Mahlog.—One of the Simla Hill States, Punjab. *See* MAILOG.

Mahmūdābād Estate.—Large *talukdāri* estate in the Districts of Sītāpur, Bāra Bankī, Kherī, and Lucknow, United Provinces, with a total area of 397 square miles. The land revenue payable to Government amounts to 3·5 lakhs, and cesses to Rs. 55,000, while the rent-roll is 8·5 lakhs. The *talukdār* traces his descent from a Shaikh named Nasrullah, who was Kāzī of Baghdād, but came to India in the twelfth century. His descendants for three generations held the office of Kāzī of Delhi; and about 1345 Kāzī Nusrat-ullah, also known as Shaikh Nathan, was sent by Muhammad bin Tughlak to reduce the Bhars in Bāra Bankī. He was successful and received a large estate. Another member of the family, named Daud Khān, was a celebrated soldier who did good service against Hīmū, the general of the Sūris. His son, Mahmūd Khān, was also a distinguished leader, and founded the town of Mahmūdābād. The family maintained its position throughout the Mughal period, and their estates were largely extended under the Oudh rulers. Nawāb Alī Khān received the title of Rājā from the king in 1850. A few years later he took a prominent part in the Mutiny, but submitted early in 1858. His successor, Muhammad Amīr Hasan Khān, rendered important public services and was rewarded by the recognition of the title of Rājā and the grant of a K.C.I.E. He was succeeded in May, 1903, by his son, Rājā Alī Muhammad Khān, a member of the Provincial Legislative Council. The chief town in the estate is MAHMŪDĀBĀD.

Mahmūdābād Town.—Town in the Sidhaulī *tahsīl* of Sītāpur District, United Provinces, situated in 27° 18′ N. and 81° 8′ E., on a metalled road from Sidhaulī station on the Lucknow-Bareilly State Railway. Population (1901), 8,664. It was founded by an ancestor of the *talukdār* who owns the MAHMŪDĀBĀD ESTATE, and contains a fine mansion, which is the family residence, and also a dispensary. A large market is held twice a week, and brass vessels are manufactured. There is a school with 58 pupils.

Mahobā Subdivision.—Subdivision of Hamīrpur District, United Provinces, including the MAHOBĀ and KULPAHĀR *tahsīls*.

Mahobā Tahsīl.—South-eastern *tahsīl* of Hamīrpur District, United Provinces, conterminous with the *pargana* of the same name, lying between 25° 6′ and 25° 38′ N. and 79° 41′ and 80° 9′ E., with an area of 329 square miles. Population fell from 74,200 in 1891 to 61,938 in 1901, the rate of decrease being the highest in the District. There are 92 villages and one town, MAHOBĀ (population, 10,074), the *tahsīl* head-quarters. The demand for land revenue in 1904–5 was Rs. 75,000, and for cesses Rs. 13,000. The density of population, 188 persons per square mile, is the lowest in the District. In the north some fairly good black soil is found; but scattered rocky hills

stud the southern portion, and the soil here is inferior and only a thin layer conceals the underlying rock. Several considerable artificial lakes made by the Chandels add a charm to the landscape and supply water for irrigation. In 1903–4 the area under cultivation was 133 square miles, of which only 5 were irrigated. *Pān* cultivated near Mahobā has a great reputation, being exported to Calcutta and Bombay.

Mahobā Town.—Ancient town in Hamīrpur District, United Provinces, and head-quarters of the *tahsīl* of the same name, situated in 25° 18′ N. and 79° 53′ E., on the road from Cawnpore to Saugor and also on the Great Indian Peninsula Railway. Population (1901), 10,074. The name is derived from the great sacrifice or *Mahotsava*, said to have been performed by Chandra Varmma, the traditional founder of the Chandel dynasty, which ruled a large tract of country from here (*see* BUNDELKHAND). Mahobā stands on the banks of the Madan Sāgar, a lake constructed by Madan Varmma, the fifteenth king and the most powerful of all the Chandel rulers. Architectural antiquities of the period abound throughout the neighbourhood. The Rām Kund, which is believed to mark the place where Chandra Varmma died, is a tank of especial sanctity. The fort, now almost entirely in ruins, commands a beautiful view over the hills and lakes. Several of the latter, confined by magnificent masonry dams, have greatly silted up; but the Kīrat Sāgar and Madan Sāgar still remain deep and clear sheets of water. The shores of the lakes and the islands in their midst (one of which in the Madan Sāgar is connected with the mainland by a stone causeway) are thickly covered with pillars and broken sculpture. The numerous arms of the lakes embrace rocky tongues of land surmounted by picturesque ruins. Three miles east of the town lies the Bijainagar Sāgar, the largest of all and more than four miles in circuit, while to the south-west lies the Rāhilya Sāgar, on the bank of which a large ruined temple is situated. Mahobā was probably the civil capital of the Chandels, while their greatest fortress was at KĀLINJAR, and their religious capital at KHAJRĀHO. After a rule of more than three centuries Parmāl was conquered by Prithwī Rāj of Delhi in 1182, and twenty years later Mahobā fell into the hands of Kutb-ud-dīn, after which little is heard of the Chandels. In the seventeenth and eighteenth centuries this part of the country was ruled by the Bundelās. The Musalmān buildings of the town are exclusively constructed from Hindu materials. A mosque bears an inscription which assigns its foundation to the year 1322 in the reign of Ghiyās-ud-dīn Tughlak. The town contains a small cotton-press, a dispensary, and a mission orphanage. It is administered under Act XX of 1856, with an income of about Rs. 3,500. There is an increasing trade in local produce. The *tahsīlī* school has 164 pupils.

Mahrāj.—A collection of four large villages in the Moga *tahsīl* of

Ferozepore District, Punjab, situated in 30° 19′ N. and 75° 14′ E. It is the head-quarters of a *pargana*, held almost entirely by the Mahrājki section (*al*) of the Sidhu Jats, the clan of which the Phūlkiān families of Patiāla, Nābha, and Jīnd are another section. A great excavation, from which was taken earth to build the town, is regarded as a sacred spot, offerings being made monthly to the guardian priest. The Mahrājkiāns, who own the surrounding country as *jāgīrdārs*, form a distinct community: physically robust, but litigious, insubordinate, and addicted to excessive opium-eating. Population (1901), 5,780. The place possesses a vernacular middle school and a Government dispensary.

Mahronī.—South-eastern *tahsīl* of Jhānsi District, United Provinces, comprising the *parganas* of Bānpur, Mahronī, and Madaorā, and lying between 24° 11′ and 24° 58′ N. and 78° 30′ and 79° 0′ E., with an area of 887 square miles. Population fell from 117,047 in 1891 to 103,851 in 1901. There are 300 villages and one town, Mahronī, the *tahsīl* head-quarters (population, 2,682). The demand for land revenue in 1903-4 was Rs. 65,000, and for cesses Rs. 12,000. The density of population, 117 persons per square mile, is the lowest in the District. In the south a confused mass of hills marks the commencement of the Vindhyan plateau. The drainage is carried off by the Dhasān and Jamnī, tributaries of the Betwā, which in turn form part of the eastern boundary. Below the hills lies a tract of black soil, gradually turning to red in the north and east. The former has largely deteriorated owing to the spread of *kāns* (*Saccharum spontaneum*). Irrigation is practised in the red soil, especially towards the north. In 1903-4 the area under cultivation was 233 square miles, of which 22 were irrigated, almost entirely from wells.

Mahsūds.—The country of the Mahsūds lies in the south of Wazīristān, North-West Frontier Province. It is hemmed in on the north and west by the Utmanzai Darwesh Khels, on the south-west by the Ahmadzai of Wānā, and on the east by the Bhittannis. On the south of the Mahsūd country a tract on both the north and south side of the Gomal Pass is devoid of permanent inhabitants. The permanent neighbours of the Mahsūds in this direction are the Shirānis, whose country lies south of the tract referred to. The Mahsūd country hardly comes in contact with British India; all the passes from it which debouch on to British territory pass through the country of the Bhittannis. The Gomal Pass is the sole exception to this rule, and several routes lead from it to the Mahsūd country. This pass has always been considered as belonging to the Mahsūds, though actually it is outside the limits of their country. The Mahsūds renounced their claim to raid in the pass, and undertook to keep it safe in consideration of the allowances and service granted in the beginning of 1890 at

Apozai (Fort Sandeman), which were revised after the attack made by them on the Delimitation Commission at Wānā in November, 1894.

The Mahsūd country is a tangled mass of mountains and hills of every size, shape, and bearing, and is intersected in all directions by ravines generally flanked through their course by high hills. At first sight the whole region appears to be occupied by hills and mountains running irregularly in all directions; but there are well-defined ranges which protect the interior of the country by double barriers, and make penetration into it a matter of extreme difficulty.

The Mahsūds claim descent from Mahsūd, son of Mahmūd, son of Khizri, son of Wazīr, and are divided into three main branches: namely, Alīzai, Shāman Khel, and Bahlolzai, each of which is subdivided into countless sections and sub-sections. The fighting strength of the three branches is estimated at—Alīzai, 4,042; Shāman Khel (including Urmars), 2,466; and Bahlolzai, 4,088: a total of 10,596. Notwithstanding the differences in their fighting strengths, the three branches divide the tribal profits and liabilities into three equal shares among themselves.

The Punjab Government described the Mahsūds in 1881 as follows:—

'Notorious as the boldest of robbers, they are more worthily admired for the courage which they show in attack and in hand-to-hand fighting with the sword. From the early days of British rule in the Punjab few tribes on the frontier have given greater or more continuous trouble, and none have been more daring or more persistent in disturbing the peace of British territory. It is no exaggeration to say that for the first twenty years after annexation not a month passed without some serious crime, such as cattle-lifting, robbery accompanied by murder, being committed by armed bands of marauders from the Mahsūd hills.'

The description is still applicable, though the behaviour of the tribe has been good since the blockade of 1901.

The redistribution of the allowances granted to the tribe in 1895, after the close of the Mahsūd expedition, was made with special reference to the reorganization of the whole scheme of *maliks*. The principle which underlies the new arrangement was that the power and influence of a limited number of leading *maliks* in the tribe, and more particularly in their respective sections, should be enhanced by every possible means, so as in the first place to enable them to control their respective sections as effectively as possible, and secondly to enable Government to deal with a definite number of tribal representatives. The plan broke down completely, for Government was unable to protect the *maliks*, and the *maliks* consequently were reluctant to exert such authority as they had. The state of the border went from bad to worse between 1895 and 1900, when the tribe was put under

strict blockade. This resulted in the submission of the Mahsūds in 1901, when a complete redistribution of allowances was made. The tribe has since restrained its young men from raiding; but fanatical murders by Mahsūds, which were previously unknown, have given them an unenviable notoriety.

Mahudha.—Town in the Nadiād *tāluka* of Kaira District, Bombay, situated in 22° 49′ N. and 72° 56′ E. Population (1901), 8,544. Mahudha is said to have been founded by a Hindu prince named Māndhāta about two thousand years ago. The municipality was established in 1889, the average income during the decade ending 1901 being Rs. 8,000. In 1903–4 the income was Rs. 8,300. The town contains a dispensary and four schools (three, including an English school, for boys and one for girls), attended by 377 male and 70 female pupils respectively.

Māhudi.—Hill in the head-quarters subdivision of Hazāribāgh District, Bengal, situated in 24° 12′ N. and 85° 12′ E., about 8 miles from the southern face of the Hazāribāgh plateau. The hill is 2,437 feet above the sea, falling steeply on every side for 800 feet. Four rock-cut temples are situated on the summit.

Māhul.—North-western *tahsīl* of Azamgarh District, United Provinces, comprising the *parganas* of Māhul, Kauriā, and Atrauliā, and lying between 25° 48′ and 26° 27′ N. and 82° 40′ and 83° 7′ E., with an area of 436 square miles. Population fell from 344,723 in 1891 to 312,234 in 1901. There are 947 villages and two towns, but neither of them has a population of over 5,000. The demand for land revenue in 1903–4 was Rs. 3,63,000, and for cesses Rs. 58,000. The density of population, 716 persons per square mile, is about the District average. The *tahsīl* is divided into two portions by the Kunwar Nadī. North of this river the soil is a light loam varying to sand, while the southern part is chiefly clay and is intersected by swamps and small channels. The largest river is the Tons. The area under cultivation in 1898–9 was 251 square miles, of which 149 were irrigated. Wells supply more than half the irrigated area, and tanks, swamps, and small streams the remainder.

Mahuva.—Town and port in the State of Bhaunagar, Kāthiāwār, Bombay, situated in 21° 5′ N. and 71° 40′ E. Population (1901), 17,549. The fort is 2 miles from the mouth of the bay, the east side of which is formed by an island known on this side as Jegri or Jigi Bluff, with a 2 fathoms shoal extending for nearly a mile. North of this shoal the water is deep. The town is 2 miles to the north of the port and is a large place, having several buildings and a temple. Good water may be had at a well on Jegri island. In the neighbourhood is a large swamp extending for several miles to the north-east. The islands that front this swamp are about 60 feet high and form a

continuous line from the bay to Kutpur Bluff, 12 miles distant from Jegri. Mahuva, the ancient name of which was Moherak, stands on the Mālan river, 55 miles south-west of Bhaunagar. The town contains a cotton-press, and is the scene of four annual fairs attended by about 5,000 people. On Jegri Bluff is a lighthouse, 99 feet high, with a fixed white catadioptric light of the fourth order visible from 13 miles. The soil of Mahuva is very fruitful and the mangoes grown here rival those of Bombay. The betel-vine is also cultivated. Coco-nut palms are plentiful. Mahuva merchants are generally both wealthy and enterprising. The principal export trade is in cotton sent to Bombay. There are good turners, who manufacture cots or *dholias*, cradles, and many kinds of wooden toys.

Maibang.—Ruins in the North Cāchār subdivision of Cāchār District, Eastern Bengal and Assam, situated in 25° 17′ N. and 93° 9′ E., between two spurs of the Barail Hills on the north side of the watershed. When the Kāchāri Rājās were compelled by the aggressions of the Ahoms and the Nāgās to abandon their capital at Dimāpur, and move farther into the hills, they settled at Maibang; but during the first half of the eighteenth century they left that place, and after crossing the Barail, established their court at KHĀSPUR in the plains of Cāchār. In 1882 a man named Sambhudan took up his abode at Maibang, and announced that he had been commissioned by Heaven to restore the Kāchāri kingdom. The Deputy-Commissioner, Major Boyd, proceeded with a force of armed police to arrest him; but Sambhudan evaded him and burnt the subdivisional station at Gunjong, which had been left undefended. He then returned and attacked the Deputy-Commissioner. The attack was easily repulsed, but Major Boyd received a severe cut in the hand, which caused his death from tetanus a few days later. Sambhudan was mortally wounded while endeavouring to escape from the police. Maibang is now a station on the Assam-Bengal Railway. Groves of bamboos and the remains of irrigation works show that the place must originally have been densely peopled, but few masonry ruins are now to be seen.

Maihar State.—A *sanad* State in Central India, under the Political Agent in Baghelkhand, lying between 23° 59′ and 24° 24′ N. and 80° 23′ and 81° 0′ E., with an area of about 407 square miles. It is bounded on the north by the State of Nāgod; on the east by Nāgod and Rewah; on the west by Ajaigarh; and on the south by the Jubbulpore District of the Central Provinces. Maihar is watered by the Tons, which traverses it in a north-easterly direction. The tract is composed mainly of sandstones of the lower Bandair (Bhānder) series, in great part concealed by alluvium. At Jukhehī in the south of the State, the strike of the Kaimur range is displaced, producing the only important gap in the whole length of the Vindhyans. Advantage

was taken of this in constructing the great Deccan road and the branch of the East Indian Railway between Jubbulpore and Allahābād.

The chiefs of Maihar claim descent from the Kachwāha Rājput clan, a claim, however, which is not admitted, and has indeed little to support it. The family apparently migrated from Alwar in the seventeenth or eighteenth century, and obtained land from the Orchhā chief. Thākur Bhīm Singh later on entered the service of Chhatarsāl of Pannā. His grandson, Benī Singh, the founder of the State, rising from a low position, finally became minister to Rājā Hindupat, who about 1770 granted him the territory now forming Maihar, which had originally been a part of Rewah. Benī Singh was killed in 1788. He has left many monuments of his liberality throughout Bundelkhand in numerous tanks and buildings. He was succeeded by his son Rājdhar, who, together with the other chiefs in this region, was conquered by Alī Bahādur of Bāndā early in the nineteenth century. Alī Bahādūr, however, restored the State to Durjan Singh, a younger son of Benī Singh. In 1806 and 1814 Durjan Singh received *sanads* from the British Government, confirming him in the possession of his lands. On his death in 1826 the State was divided between his two sons, Bishan Singh, the elder, succeeding to Maihar, while Prāg Dās, the younger, obtained Bijai-Rāghogarh. The latter State was confiscated in 1858 owing to the rebellion of the chief. The present chief, Raghubīr Singh, succeeded as a minor in 1852, and obtained administrative powers in 1865. The title of Rājā was conferred on him in 1869 as an hereditary distinction, and a personal salute of 9 guns was granted in 1877 and made hereditary in 1878.

The region in which Maihar lies is of considerable archaeological interest, but has not as yet been fully investigated. Remains are numerous throughout the State, especially of temples in the mediaeval style of the eleventh to the thirteenth century.

The population has been: (1881) 71,709, (1891) 77,546, and (1901) 63,702, giving a density of 156 persons per square mile. Hindus number 49,740, or 78 per cent.; Animists (chiefly Gonds), 11,876, or 19 per cent.; and Musalmāns, 2,009. The State has one town, MAIHAR (population, 6,802), the capital; and 210 villages. Baghelkhandī is spoken by 50 per cent. of the inhabitants, and Bundelkhandī by 47 per cent. Agriculture supports about 90 per cent. of the total population.

The soil, except in the hills, is fertile and bears good crops. Of the total area, 110 square miles, or 27 per cent., are under cultivation, of which 70 square miles are irrigable; 43 square miles are cultivable but not cultivated; and the rest consists of forest and waste. The forests, which cover a large area of the State, are not as yet under systematic management. *Kodon* and rice each occupy 20 square miles,

or 36 per cent. of the cropped area; gram, 12 square miles; and wheat, 8 square miles.

Formerly a considerable iron-smelting industry existed, but this has now almost entirely disappeared. Want of good internal communications has made the development of trade difficult, though a certain amount of timber is exported.

The chief has full powers in all matters of general administration and in civil judicial cases. In criminal cases he has power to inflict sentences of imprisonment not exceeding two years. The total revenue from all sources is about Rs. 75,000, of which Rs. 55,000 is derived from land revenue. The principal item of expenditure is Rs. 32,000 on general administration, including the chief's establishment. The British rupee has been current since 1849. A small force of foot and horse, amounting to 150 men with 7 serviceable guns, is maintained. At the Census of 1901, only 1 per cent. of the population were able to read and write. The State contains eleven schools and one hospital. Vaccination has made little progress, owing to the strong prejudice shown by the inhabitants.

Maihar Town.—Capital of the State of the same name in Central India, situated in 24° 16′ N. and 80° 46′ E., on the East Indian Railway, at the foot of the Bandair range, 1,980 feet above the level of the sea. Population (1901), 6,802. It is a well-built place, many of the houses being constructed of the local sandstone. Outside the present site is a fort built in the sixteenth century by Rājā Bīr Singh Deo of Rewah, mainly from remains of Hindu temples, which is used as a residence by the chief. A large number of ruined shrines are scattered round the town, and traces of old foundations exist which must have belonged to a large place. There are two lakes, one to the north-west and the other to the south-west of the town. Maihar contains a British post-office, a school, and a dispensary.

Maikala (or Mekala).—Range of hills in the Central Provinces and Central India, lying between 21° 11′ and 22° 40′ N. and 80° 46′ and 81° 46′ E. It is the connecting link between the great hill systems of the VINDHYAS and SĀTPURĀS, forming respectively the northern and southern walls of the Narbadā valley. Starting in the Khairāgarh State of the Central Provinces, the range runs in a general south-easterly direction for the first 46 miles in British territory, and then, entering the Sohāgpur *pargana* of Rewah State, terminates 84 miles farther at AMARKANTAK, one of the most sacred places in India, where the source of the Narbadā river is situated. Unlike the two great ranges which it connects, the Maikala forms a broad plateau of 880 square miles in extent, mostly forest country inhabited by Gonds. The elevation of the range does not ordinarily exceed 2,000 feet, but the Lāpha hill, a detached peak belonging to it, rises to 3,500 feet. The range

is best known for the magnificent forests of *sāl* (*Shorea robusta*) which clothe its heights in many places. These are mainly situated in *zamīndāri* estates or those of Feudatory chiefs, and hence are not subject to any strict system of conservation, and have been much damaged by indiscriminate fellings. The hills are mentioned in ancient Hindu literature as the place of Maikala Rishi's penance, though Vyāsa, Bhrigu, Agastya, and other sages are also credited with having meditated in the forests. Their greatest claim to sanctity lies, however, in the presence upon them of the sources of the NARBADĀ and SON rivers. The Mārkandeya Purāna relates how, when Siva called successively on all the mountains of India to find a home for the Narbadā, only Maikala offered to receive her, thus gaining undying fame; and hence the Narbadā is often called Maikala-Kanyā, or 'daughter of Maikala.' The Mahānadī and Johillā, as well as many minor streams, also have their sources in these hills. Local tradition relates that in the fourth and fifth centuries A. D., during the Gupta rule, this plateau was highly populated; and the Rāmāyana and the Purānas mention the Mekhalās as a tribe of the Vindhya range, the former work placing them next the Utkalas or people of Orissa. The Rewah State has lately begun to open up the plateau. Iron ore is met with in some quantity, and is still worked at about twenty villages to supply the local demand.

Mailān.—Hill in the Surgujā State, Central Provinces, situated in 23° 31′ N. and 83° 37′ E., and rising to a height of 4,024 feet above sea-level.

Mailār.—Village in the Hadagalli *tāluk* of Bellary District, Madras, situated in 14° 48′ N. and 75° 42′ E. Population (1901), 1,722. It is famous throughout the District for the annual festival held at its temple every February, at which a cryptic sentence containing a prophecy (*kāranikam*) regarding the prospects of the coming year is uttered.

The temple is dedicated to Siva in his form of Mallāri. The story is that a demon called Mallāsura ('the demon Malla') and his brother, having by severe penances extracted from Brahmā a promise that they should never be harmed by any being in any form then existing, began to harass the *rishis*. The gods were appealed to; and Siva put on a new form, so as to evade Brahmā's promise, and taking with him forces to the number of seven crores, also in new forms (such as dogs) which had never before served in an army, warred with Mallāsura and his brother for ten long days and at length slew them both with his bow and overcame their followers. The gods and *rishis* were in transports at his triumph, and joined in foretelling unbroken prosperity as the fruit of it. The ceremonies and rites at the festival form a curious sort of miracle-play representative of this war in heaven and its result. The pilgrims to the festival go about shouting *Elukoti!*

Elukoti! ('seven crores!') instead of the name of the god as usual; and the *goravas*, the special name for the men (and women) who have dedicated themselves to this temple in the curious manner prevalent in the western *tāluks*, dress themselves up in blankets and run about on all fours, barking and pretending that they are Siva's army of dogs. After residing for ten days, the period during which Siva fought with Mallāsura and his brother, on a hillock outside the village, the god returns. He is met half-way by the goddess, his wife, who comes to congratulate him on his success, and the two remain for some time at the place of meeting. The expectation of good times to follow the victory is represented by the prophecy or *kāranikam*. It is pronounced on this tenth day, and all the thousands of people present crowd round the place where the god and goddess have halted. A huge wooden bow, about 10 feet long, symbolic of that with which Siva slew Mallāsura, is brought and placed on end. A Kuruba (the same man has performed the ceremony for many years in succession) who has fasted for the past week steps forward and receives the benediction of the temple manager. He then climbs partly up the bow, being supported by those nearest him. For a minute or two he looks in a rapt manner to the four points of the compass, then begins shuddering and trembling as a sign that the divine afflatus is upon him, and calls out 'Silence!' The most extraordinary and complete silence immediately falls upon the great crowd of pilgrims, every one waiting anxiously for the prophecy. After another minute's pause and again gazing upwards to the heavens, the Kuruba pronounces the word or sentence which foretells the fate of the coming year, invariably following it with the word *Parak!* meaning 'Hark ye,' or 'Take ye note.' It is stated that in the year before the Mutiny the prophecy was 'they have risen against the white-ants.' Latterly the sentence has either been of exceedingly cryptic meaning, or has related to the prospects of the crops.

Mailog (*Mahlog*).—One of the Simla Hill States, Punjab, lying between 30° 52′ and 31° 5′ N. and 76° 52′ and 76° 58′ E., with an area of 43 square miles. Population (1901), 8,968. Patta, its capital, lies 30 miles south-west of Simla station, at the foot of the Kasauli hill. The chiefs of Mailog came from Ajodhyā. The State used to pay tribute to the Mughal emperors through Bilāspur, and with that State was occupied by the Gurkhas between 1805 and 1815. In the latter year, on the expulsion of the Gurkhas, the Thākur received a *sanad* from the British Government confirming him in the possession of the State. Thākur Raghunāth Chand succeeded in 1880 and obtained the title of Rānā in 1898. On his death in 1902 he was succeeded by his minor son, Thākur Durgā Chand, and the State is now administered by a council of four members. The State has a revenue of Rs. 20,000, out of which Rs. 1,440 is paid as tribute.

Mailsi.—*Tahsīl* of Multān District, Punjab, lying between 29° 35′ and 30° 19′ N. and 71° 45′ and 72° 52′ E., with an area of 1,658 square miles. Its long southern boundary is formed by the Sutlej, which periodically floods the lowland along its bank. Between the lowlands and the still uncultivated Bār lies a tract of country irrigated by inundation canals from the Sutlej. The population in 1901 was 109,727, compared with 106,050 in 1891. It contains 332 villages, including Mailsi, the head-quarters. The land revenue and cesses in 1903–4 amounted to 2·1 lakhs.

Maimana.—Head-quarters of the district of the same name in Afghān-Turkistān, situated in 35° 55′ N. and 64° 46′ E.; 2,860 feet above the sea. The town, which is a large one as far as area is concerned, the circuit of its walls equalling that of Herāt, comprises about 3,000 houses and 233 shops, but has a generally deserted and decayed look. There are no important industries, the manufactures being limited to *barak* and *kurk* (both woollen fabrics), and a coarse blue cotton cloth. The principal articles of trade are Bokhāra and Meshed silk, Russian leather, and printed cotton goods, English cotton cloth, velvets, tea, indigo, and hardware; and the usual agricultural products of the country—wheat, barley, tobacco, and dried fruits. Maimana derives such importance as it possesses from being the place of exchange for goods brought from Herāt, Kandahār, and Meshed on one side, from Kābul and Balkh on another, and from Bokhāra and Andkhui on the third. The population is chiefly Uzbeg, but representatives of every race in Central Asia and Afghānistān are to be found in the bazars. Until the reign of Amīr Abdur Rahmān Khān, Maimana maintained a semi-independence under its own chiefs; but in 1883–4 the Amīr dispatched a force to bring it under subjection, and Dilāwar Khān, the chief, surrendered and was sent to Kābul. The Amīr at first appointed a member of the chief's family as Walī, with very restricted powers, the real control resting in the hands of an Afghān Resident. In 1892 the tribal levies and inhabitants of the Maimana district broke into rebellion, which Abdur Rahmān soon suppressed; the Walī was removed, and Maimana has since been treated as an ordinary Afghān district.

Maimansingh.—District, subdivision, and town in Eastern Bengal and Assam. *See* MYMENSINGH.

Maindargi.—Head-quarters of the *tāluka* of the same name in the Kurandvād State, Bombay, situated in 17° 28′ N. and 76° 20′ E. Population (1901), 6,153. It is administered as a municipality, with an income of about Rs. 400. Weaving of coarse cloth and blankets is carried on.

Maingkaing. — North-eastern township of the Upper Chindwin District, Upper Burma, comprising the basin of the U...

lying between 24° 22′ and 25° 48° N. and 94° 41′ and 96° 20′ E., with an area of 4,665 square miles. The population, which is almost wholly Shan, amounted approximately to 11,000 in 1891, and to 23,303 in 1901, distributed in 248 villages. Maingkaing (population, 470), on the Uyu river, about 30 miles from its mouth, is the head-quarters. The population is confined to the banks of the Uyu and a few of its tributaries. Except for a few patches of level ground near the Uyu, the whole country is a maze of hills. The greater part of the township is dense jungle, and is exceedingly unhealthy. The area cultivated in 1903–4 was 29 square miles, and the land revenue and *thathameda* amounted to Rs. 39,000.

Maini.—Town in the Khatao *tāluka* of Sātāra District, Bombay. *See* MAYNI.

Mainpāt.—A magnificent table-land in the Surgujā State, Central Provinces, 18 miles long and 6 to 8 miles broad, lying between 22° 46′ and 22° 54′ N. and 83° 8′ and 83° 24′ E. It rises to a height of 3,781 feet above the sea and forms the southern barrier of the State. From the southern face of the plateau, which is mainly composed of gneiss and ironstone, long spurs strike out into the plains of Udaipur, while the northern side is a massive wall of sandstone, indented like a coast-line with isolated bluffs standing up in front of the cliffs from which they have been parted. The plateau is well watered throughout, and affords, during the summer months, abundant grazing for the cattle of Mirzāpur and Bihār.

Mainpurī District.—District in the Agra Division, United Provinces, lying between 26° 53′ and 27° 31′ N. and 78° 27′ and 79° 26′ E., with an area of 1,675 square miles. It is bounded on the north by Etah; on the east by Farrukhābād; on the south by Etāwah and Agra; and on the west by Agra and Etah. The whole District forms a level plain, and variations in its physical features are chiefly due to the rivers which flow across it or along its boundaries, generally from north-west to south-east. The Jumna, which forms part of the southern boundary, is fringed by deep ravines, extending two miles from the river, incapable of cultivation, but affording good pasturage for cattle, as well as safe retreats for the lawless herdsmen or Ahīrs. North-east flow, in succession, the Sirsā, the Agangā, the Sengar, the Arind or Rind, the Isan, and the Kālī Nadī (East), which last forms the greater part of the northern boundary. A well-defined sandy ridge lies in the west of the District, and a range of sandhills follows the course of the Kālī Nadī, a little inland. Shallow lakes or marshes abound over the whole area, but are most common in the central table-land, in which are many large stretches of barren soil called *ūsar*.

Physical aspects.

The soil consists entirely of Gangetic alluvium; but *kankar* is abun-

dant, both in nodular and block form. Saline efflorescences occur in many parts.

The flora presents no peculiarities. The District is well wooded, and extensive groves of mango and *shīsham* (*Dalbergia Sissoo*) abound. The great *dhāk* jungles (*Butea frondosa*) which formerly studded the District have been largely cut away. *Babūl* (*Acacia arabica*) is common. The weed *baisurī* (*Pluchea lanceolata*) is a pest in the west, and *kāns* (*Saccharum spontaneum*) is sometimes troublesome in the sandy soil to the north-east.

There are few wild animals in the District. Antelope occur in some numbers, and *nīlgai* in the *dhāk* jungles. Leopards and hyenas are found in the Jumna ravines, and wolves everywhere. Pigeons, water-fowl, and quail are common. Fish are plentiful, and the right of fishing in the rivers and tanks is often valuable.

The climate of Mainpurī is that of the Doāb generally. It is hot, but not excessively sultry during the summer months. The annual rainfall averages 31 inches, and the tract near the Jumna receives slightly more than the rest. Variations from year to year are considerable.

History.

Nothing definite is known of the early history of Mainpurī, though mounds concealing ancient ruins are common. A few places are, as usual, connected with episodes in the Mahābhārata. The first precise notice of the District, however, is found in the records of its Muhammadan invaders. In 1194 Rāprī was made the seat of a Musalmān governor, and continued to be the local head-quarters under many successive dynasties. During the vigorous rule of Sultān Bahlol (1450–88) Mainpurī and Etāwah formed a debatable ground between the powers of Delhi and Jaunpur, to both of which they supplied mercenary forces. After the firm establishment of the Lodī princes, Rāprī remained in their hands until the invasion of the Mughals. Bābar occupied it in 1526, and Etāwah also came into his hands without a blow. Rāprī was wrested from the Mughals for a while by the Afghān, Kutb Khān, son of Sher Shāh, who adorned it with many noble buildings, the remains of which still exist. On the return of Humāyūn, the Mughals once more occupied Mainpurī. Akbar included it in the *sarkārs* of Kanauj and Agra. The same vigorous ruler also led an expedition into the District for the purpose of suppressing the robber tribes by whom it was infested. During the long ascendancy of the line of Bābar the Musalmāns made little advance in Mainpurī. A few Muhammadan families obtained possessions in the District, but a very small proportion of the natives accepted the faith of Islām. Under the successors of Akbar Rāprī fell into comparative insignificance, and the surrounding country became subordinate to Etāwah.

Like the rest of the Central Doāb, Mainpurī passed towards the end of the eighteenth century into the power of the Marāthās, and finally became a portion of the province of Oudh. When the region was ceded to the British by the Nawāb of Oudh in 1801, Mainpurī was made the head-quarters of the extensive District of Etāwah. With the exception of a raid by Holkar in 1804, which was repulsed by the provincial militia, there are no events of importance to recount during the early years of British supremacy. Its unwieldy size was gradually reduced by the formation of Etah and Etāwah as separate Districts. The construction of the Ganges Canal was the only striking event between the cession and the Mutiny of 1857.

News of the outbreak at Meerut reached Mainpurī on May 12; and on the 22nd, after tidings of the Alīgarh revolt had arrived at the station, the 9th Infantry rose in open mutiny. The few Europeans at Mainpurī gallantly defended the town till the 29th, when the arrival of the Jhānsi rebels made it necessary to abandon the District entirely. The Magistrate and his party were accompanied as far as Shikohābād by the Gwalior troopers, who then refused to obey orders, but quietly rode off home without molesting their officers. The fugitives reached Agra in safety. Next day the Jhānsi force attacked the town, but was beaten off by the well-disposed inhabitants. The District remained in the hands of the rebel Rājā of Mainpurī, who held it till the re-occupation, when he quietly surrendered himself, and order was at once restored.

Population.

There are 8 towns and 1,380 villages. Population has fluctuated during the last thirty years. Between 1881 and 1891 excessive floods threw much land out of cultivation; but the seasons in the following decade were more favourable. The number of inhabitants at the last four enumerations was: (1872) 765,845, (1881) 801,216, (1891) 762,163, and (1901) 829,357. The density of population is below the average of the western plain. The District is divided into five *tahsīls*—MAINPURĪ, BHONGAON, KARHAL, SHIKOHĀBĀD, and MUSTAFĀBĀD—the head-quarters of which (except that of Mustafābād, which is at Jasrāna) are at places of the same names. The principal town is the municipality of MAINPURĪ. The table on the next page gives the chief statistics of population in 1901.

About 93 per cent. of the population are Hindus, and less than 6 per cent. Musalmāns, a very low proportion for the United Provinces. Western Hindī is spoken almost universally, the prevailing dialect being Braj.

The most numerous Hindu castes are Ahīrs (graziers and cultivators), 143,000; Chamārs (tanners and labourers), 107,000; Kāchhīs (cultivators), 68,000; Brāhmans, 68,000; and Rājputs, 68,000. Among Musalmāns the chief tribes or castes are Shaikhs, 8,100; Pathāns,

6,600; Fakīrs, 5,700; and Behnas (cotton-carders), 5,200. Agriculture supports 70 per cent. of the population, a high proportion; general labour 6 per cent., and personal service 6 per cent.

Tahsīl.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Mainpurī . .	386	3	249	183,180	475	+ 7·0	5,327
Bhongaon . .	459	1	390	226,940	494	+ 16·2	5,832
Karhal . .	218	1	189	98,398	451	− 1·9	2,386
Shikohābād .	294	2	287	157,659	536	+ 12·5	3,792
Mustafābād .	318	1	265	163,180	513	+ 5·1	2,241
District total	1,675	8	1,380	829,357	495	+ 8·8	19,578

There were only 308 native Christians in 1901, of whom 196 were Methodists and 45 Presbyterians. The American Presbyterian Church commenced work here in 1843.

Agriculture.

The District is divided by its rivers into three tracts of varying qualities. On the north-east the area between the Isan and the Kālī Nadī is composed of light sandy soil called *bhūr*, with here and there loam, especially near the west, where these two rivers are farthest apart. Between the Isan and Sirsā lies the garden of the District, a rich tract of fertile loam, interspersed with many shallow lakes, patches of barren *ūsar* land, and occasional jungle. The third tract, commencing a little south of the Sengar, has some sandy stretches, but is much better than the north-eastern tract, and as far as the Sirsā little inferior to the central tract. South of the Sirsā the soil deteriorates; there are no *jhīls* and no *ūsar*; the land is not so rich, and irrigation is scantier, the spring-level sinking rapidly as the Jumna ravines are approached.

The District contains the usual tenures of the Provinces, but *zamīndāri* and *pattīdāri* are more common than *bhaiyāchārā mahāls*. There is one large *talukdāri* estate belonging to the Rājā of MAINPURĪ, which is described separately. The main agricultural statistics are given on the next page, in square miles.

The chief food-crops, with the area under each (in square miles), are: wheat (220), *jowār* (122), barley (110) *bājra* (100), and gram (90). Poppy and cotton are the most important non-food crops, covering 28 and 39 square miles respectively.

No improvements can be noted in agricultural practice, except the increase in the area double cropped, and in the area under wheat, maize, and poppy. A steady demand exists for advances under the Agriculturists' and Land Improvement Loans Acts, which aggregated 1·3 lakhs during the ten years ending 1900. One third of this

was advanced in the famine year 1896–7. The loans in 1903–4 amounted to Rs. 4,500. In the central and part of the south-western tract drainage was defective and has recently been improved, especially in the latter, where the Bhognīpur branch of the Lower Ganges Canal had caused some obstruction.

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Mainpurī	386	179	152	50
Bhongaon	459	260	205	61
Karhal	218	110	101	27
Shikohābād	294	196	160	44
Mustafābād	318	181	101	26
Total	1,675	926	719	208

NOTE.—These figures are for various years from 1900 to 1903, later figures not being available.

The cattle are of the ordinary inferior type, though a little success has been achieved in improving the strain by imported bulls. Something has also been done to improve the breed of horses, and stallions have been kept here for many years. In 1870 an attempt was made, without success, to improve the breed of sheep. The best goats are imported from west of the Jumna. Sirsāganj is the great cattle market.

Mainpurī is well supplied by canal-irrigation in almost every portion, and 900 square miles are commanded. In the latest years for which statistics are available, out of 719 square miles irrigated canals supplied 266. The central tract is served by the Cawnpore and Etāwah branches of the Lower Ganges Canal, which originally formed part of the Upper Ganges Canal. The tract north-east of the Isan is served by the Bewar branch, and part of that south-west of the Sengar and Sirsā by the Bhognīpur branch. The last tract is perhaps that in which irrigation is most defective. Wells supplied 396 square miles, and other sources, chiefly small streams, 57. Towards the Jumna, and in the sandy tracts, wells cannot be constructed easily.

Kankar is found abundantly in both block and nodular form. The only other mineral product of the District is saltpetre, which is largely manufactured from saline efflorescences.

Trade and communications.

The District has few arts or manufactures. Glass bangles are made from *reh.* Wood-carving was once popular in many parts, including a peculiar variety in which the wood is inlaid with brass or silver wire. There is one cotton-gin at Shikohābād, another was recently built at Mainpurī, and a third is working at Sirsāganj. Indigo is still made in twenty-three factories, which employ about 1,000 hands.

The chief exports are wheat and other grains, oilseeds, hides, and cotton; and the imports are salt, metals, piece-goods, sugar, tobacco,

and rice. The trade is largely with Cawnpore, but sugar comes from Rohilkhand and tobacco from Farrukhābād. Some traffic is carried by the canal.

The East Indian Railway crosses the south-western corner, and a branch line, recently constructed, connects Shikohābād with Mainpurī and Farrukhābād, thus traversing the District from west to east. There are 197 miles of metalled and 200 miles of unmetalled roads. The Public Works department has charge of the former; the cost of all but 83 miles of the metalled and of all the unmetalled roads is met from Local funds. Avenues of trees are maintained on 102 miles. Few Districts in the Provinces are so well supplied with roads, and only in the south-west are communications defective. The grand trunk road passes through the north-west, with a branch to Agra through Mainpurī town, which is also connected by metalled roads with the surrounding Districts.

Famine.

Mainpurī suffered severely in 1837–8, when extensive remissions of revenue were necessary, but nothing more was done to relieve distress. In 1860–1 relief works were opened and 4,000 able-bodied persons worked daily, besides 4,600 who received gratuitous relief. In 1868 the situation was saved by timely rain, and grain was actually exported. Distress was felt in 1877–8, especially in the south-west of the District, where canal-irrigation was not available, and relief works had to be opened. In 1896–7 prices were high, but 2,000 temporary wells were made from Government advances, besides 12,000 constructed from private capital, and distress was confined to the immigrants from Rājputāna. A test work attracted only a daily average of 100 persons. The four branches of the canal now make the District practically immune.

Administration.

The ordinary District staff includes the Collector, and four Deputy-Collectors recruited in India. There is a *tahsīldār* at the head-quarters of each *tahsīl*. Mainpurī is also the head-quarters of an Executive Engineer in charge of a division of the Lower Ganges Canal, and of an officer of the Opium department.

There are two regular Munsifs. The District and Sessions Judge of Mainpurī and the Sub-Judge exercise jurisdiction also over Etāwah District. Crime is of the usual nature, but outbreaks of dacoity are frequent. Cattle-theft is not uncommon, and offences against the opium law are numerous. Mainpurī has long held a bad reputation for female infanticide, and 21,082 persons were still under surveillance in 1904, by far the largest number in any District of the United Provinces.

In 1801 Mainpurī became the head-quarters of the District of Etāwah, which then included, besides the present District, parts of Farrukhābād, Agra, Etah, and Etāwah.

were made, and in 1824 four subdivisions were formed, the Mainpurī portion remaining under the Collector of Etāwah, who still resided at Mainpurī. The District began to take its present form in 1837. Early settlements were for short periods, and were based on the records of previous collections and on a system of competition, preference, however, being given to the hereditary *zamīndārs*, if they came forward. The first regular settlement was made in 1839-40, when a revenue of 12·5 lakhs was fixed. This assessment was, as it turned out, excessive, owing to the failure to allow for the after-effects of the famine of 1837-8; and it was reduced in 1845-6 to 10·5 lakhs, rising gradually to 11·4 lakhs in 1850-1. The next settlement was made between 1866 and 1873. Soils were marked off on the village map by actual inspection, and the rents payable for each class of soil were ascertained. The revenue assessed amounted to rather less than half the 'assets' calculated by applying these rates, and was fixed at 12·8 lakhs. In 1877, owing to floods, mainly along the Kālī Nadī, the settlement of seventy villages was revised. Between 1883 and 1887 serious injury from floods again occurred along the Kālī Nadī, and *kāns* grass spread, while in the south the new Bhognīpur branch of the canal had caused damage. The revenue was reduced by about Rs. 19,000. The present demand falls at an incidence of Rs. 1-5 per acre, varying from little more than 8 annas to nearly Rs. 1-12. A revision of settlement has just been completed.

Collections on account of land revenue and total revenue are given below, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	12,60	12,23	12,74	12,44
Total revenue . .	14,46	16,95	17,91	18,31

Besides the single municipality of Mainpurī, there are seven towns administered under Act XX of 1856. Outside these, local affairs are managed by the District board, which has an income of about a lakh, chiefly derived from rates. In 1903-4 the largest item of expenditure was Rs. 81,000 on roads and buildings.

The District Superintendent of police has a force of 4 inspectors, 83 subordinate officers, and 340 men, besides 102 municipal and town police, and 1,859 rural and road police. A sub-inspector and 11 head constables are specially maintained in connexion with the surveillance of villages where female infanticide is believed to be prevalent. There are 15 police stations. The District jail contained a daily average of 293 prisoners in 1903.

Mainpurī takes a very low place in respect of literacy. In 1901 only 2·4 per cent. of the population (4·2 males and 0·2 females) could

read and write. The number of public schools fell from 151 in 1881 to 133 in 1901, but the number of pupils rose from 4,146 to 4,851. In 1903–4 there were 153 public schools with 5,151 pupils, of whom 173 were girls, besides 82 private schools with 811 pupils. Three of the public schools are managed by Government, and most of the remainder by the District or municipal boards. In 1903–4, out of a total expenditure on education of Rs. 38,000, Local funds contributed Rs. 32,000 and fees Rs. 3,000.

There are 8 hospitals and dispensaries, with accommodation for 36 in-patients. In 1903 the number of cases treated was 47,000, of whom 772 were in-patients, and 1,920 operations were performed. The expenditure in the same year was Rs. 8,200, chiefly met from Local funds.

About 25,000 persons were successfully vaccinated in 1903–4, representing 30 per 1,000 of population. Vaccination is compulsory only in the municipality of Mainpurī.

[M. A. McConaghey and D. M. Smeaton, *Settlement Report* (1875); *District Gazetteer* (1876, under revision).]

Mainpurī Tahsīl.—Central northern *tahsīl* of Mainpurī District, United Provinces, comprising the *parganas* of Mainpurī, Ghiror, and Kuraulī, and lying between 27° 5′ and 27° 28′ N. and 78° 42′ and 79° 5′ E., with an area of 386 square miles. Population increased from 171,152 in 1891 to 183,180 in 1901. There are 249 villages and three towns, MAINPURĪ (population, 19,000), the District and *tahsīl* head-quarters, being the largest. The demand for land revenue in 1903–4 was Rs. 2,24,000, and for cesses Rs. 36,000. The density of population, 475 persons per square mile, is slightly below the District average. The *tahsīl* is bounded on the north by the Kālī Nadī, and is also crossed by the Isan and its tributary the Kāknadiyā, and by the Arind. Near the Kālī Nadī lies a considerable area of sandy soil or *bhūr*; but most of the *tahsīl* consists of fertile loam, in which some large swamps or *jhīls*, now partly drained, and patches of *ūsar* or barren land alone break the uniformly rich cultivation. Three branches of the Lower Ganges Canal provide ample means of irrigation. In 1900–1 the area under cultivation was 179 square miles, of which 152 were irrigated. Wells supply about half the irrigated area, canals one-third, and tanks or *jhīls* most of the remainder.

Mainpurī Estate.—A *talukdāri* estate in the District of the same name, United Provinces, with an area of 89 square miles. The rent-roll for 1903–4 amounted to more than a lakh, and the revenue and cesses payable to Government by the estate were Rs. 58,000. The Rājā of Mainpurī is regarded as the head of the Chauhān Rājputs in the Doāb. He traces descent to the renowned Prithwī Rāj of Delhi, who fell before Muhammad Ghorī in 1192. According to tradition,

the Chauhāns settled near Bhongaon early in the fourteenth century. It is probable that the Rai Pratāp, mentioned by the Muhammadan historians as occupying part of this District towards the close of the fifteenth century, was a member of the family. Pratāp aided Bahlol Lodī in his wars with Jaunpur and was confirmed in his estates. Jagat Man, ninth in descent from Pratāp, founded the city of Mainpurī, which was extended in 1749 by another descendant. During the rule of the Oudh government, towards the close of the eighteenth century, the Rājā was deprived of many of the farms he had previously held; but at the cession to the British a large tract was settled with him as *talukdār*, the estate being sometimes known as Manchana. In 1840 it was decided that settlement should be made with the subordinate proprietors where these existed, the *talukdār* receiving a certain proportion of the rental 'assets,' but being excluded from management of the villages. The Rājā now receives this allowance from 133 villages, while his *zamīndāri* estate comprises 75 villages. In the Mutiny Rājā Tej Singh rebelled, and the estate was confiscated and conferred on his uncle Bhawānī Singh, who had contested the title when Tej Singh succeeded. The present Rājā, Rām Partāb Singh, is a son of Bhawānī Singh.

Mainpurī Town.—Head-quarters of the District and *tahsīl* of the same name, United Provinces, situated in 27° 14′ N. and 79° 3′ E., at the junction of metalled roads from Agra, Etāwah, Etah, and Fatehgarh, and on a branch of the East Indian Railway recently opened from Shikohābād. Population (1901), 19,000. The town, which lies south of the Isan river, is made up of two parts, Mainpurī proper and Muhkamganj, lying respectively north and south of the Agra road. The former existed, according to tradition, in the days of the Pāndavas, while another fable connects an image known as Main Deo with the name. It seems to have been of no importance till the Chauhāns migrated here from Asaulī at dates ranging from the thirteenth to the sixteenth century, according to different versions. The town contains a fort, composed partly of brick and partly of mud, belonging to the Rājā. Muhkamganj was founded in 1803 by Rājā Jaswant Singh. In the Mutiny the place was occupied by the Jhānsi rebels, who plundered and burnt the civil station, but were beaten off when they attempted to sack the town. The Agra branch of the grand trunk road runs through the centre and forms a wide street, lined on either side by shops which constitute the principal bazar. Besides a *tahsīlī* and dispensary, the town contains the head-quarters of the American Presbyterian Mission, a large *sarai* and grain market called Raikesganj, after the Collector who built it about 1849, and a fine street called Laneganj, after another Collector. The civil station, with the District offices and jail, lies north of the Isan, which is crossed by stone

bridges. Mainpurī has been a municipality since 1866. During the ten years ending 1901 the income and expenditure averaged Rs. 16,000. In 1903-4 the income was Rs. 22,000, chiefly from octroi (Rs. 16,000); and the expenditure was Rs. 25,000. Trade is mainly local, but may be expected to expand now that the railway is opened. The place is noted for the production of articles of carved wood inlaid with brass wire. A steam cotton-ginning factory, recently opened, employs about 100 hands. The municipality maintains two schools and aids two others, with 322 pupils in 1904. There are also a District and *tahsīlī* schools, and a Presbyterian Mission school.

Maiskhāl.—Island off the coast of Chittagong District, Eastern Bengal and Assam, lying between 21° 29′ and 21° 45′ N. and 91° 50′ and 91° 58′ E., with an area of 102 square miles. Population (1901), 24,228. Through the centre and along the east coast-line rises a range of low hills 300 feet high; the west and north are fringed by mangrove jungle and are of the same character as the Sundarbans. Among the hills is built the shrine of Adināth, which attracts pilgrims from all parts of the District. The greater portion of the island belongs to a permanently settled estate.

Maisūr.—Native State, District, *tāluk*, and town. *See* MYSORE.

Maizar.—Village on the southern bank of the Margha river in the Madda Khel territory, Northern Wazīristān Agency, North-West Frontier Province, situated in 32° 54′ N. and 69° 37′ E. On June 10, 1897, the Madda Khels treacherously attacked the Political officer's escort, and shot down several British officers and sepoys of the force under the walls of the village. A punitive expedition was dispatched, which exacted a fine of Rs. 10,000, besides Rs. 9,000 as compensation for the property taken in the attack, and the surrender of six of the ringleaders.

Majhaulī.—Village in the Deoriā *tahsīl* of Gorakhpur District, United Provinces. *See* SALEMPUR-MAJHAULĪ.

Majhgawān.—Village lands in the Mau *tahsīl* of Bāndā District, United Provinces, containing the town of RĀJĀPUR.

Majītha.—Town in the District and *tahsīl* of Amritsar, Punjab, situated in 31° 46′ N. and 74° 58′ E., 12 miles north-east of Amritsar city. The main branch of the Bāri Doāb Canal runs between Majītha and the village of Kathū Nangal, a station on the Amritsar and Pathānkot Railway, 4 miles to the north. Population (1901), 6,403. The town is said to have been founded by a Gil Jat from the Mālwā, named Madū, who called the town Madū Jetha after his eldest son (*jetha*). To the Jat clan of this village belonged the Majītha Sardārs, some of whom, such as Sardārs Desa Singh and Lehna Singh, held high places at the court of Ranjīt Singh. The municipality was created in 1867. The income during the ten years ending 1902-3

averaged Rs. 3,700, and the expenditure Rs. 3,000. In 1903-4 the income was Rs. 4,800, chiefly from octroi; and the expenditure was Rs. 4,700. Some carpets are manufactured, but the town is not of any commercial importance. There is an Anglo-vernacular middle school and a dispensary.

Mājuli.—Island (or *char*) in the north of Sibsāgar District, Assam, lying between 26° 45′ and 27° 12′ N. and 93° 39′ and 94° 35′ E., formed by the diversion of the Kherkutiā channel from the main stream of the Brahmaputra. This channel subsequently receives the waters of the Subansirī, in itself a large river, and is then known as the Luhit to the point where it rejoins the parent stream opposite the mouth of the Dhansiri. The island has an area of 485 square miles, with a population (1901) of 35,000, and is the site of the AUNIĀTI, DAKHINPĀT, GARAMUR, and other *sattras*, or priestly colleges, which are held in great reverence by the Assamese. The Mājuli is much exposed to flood and diluvium, and the staple crops are summer rice and mustard. It contains numerous streams, lakes, and patches of tree forest covered with beautiful cane brake, and the general effect is very picturesque. The island has but one road and no town, and an old-world air pervades the place which savours more of the eighteenth than the twentieth century.

Makanpur.—Village in the *tahsīl* of Bilhaur, Cawnpore District, United Provinces, situated in 26° 54′ N. and 79° 59′ E., 40 miles north-west of Cawnpore city. The shrine of a Musalmān saint, named Shāh Madār, who had originally been a Jew, attracts a large number of pilgrims annually, both Musalmān and Hindu, the latter regarding the saint as an incarnation of the god Lakshmana. In addition to the religious attractions of the fair, a large cattle-market is held, at which 15,000 to 20,000 animals of all kinds are offered for sale.

Makhtal.—*Tāluk* in Mahbūbnagar District, Hyderābād State, with an area of 511 square miles. The population in 1901, including *jāgīrs*, was 69,560, compared with 68,031 in 1891. The *tāluk* contains 120 villages, of which 13 are *jāgīr*, and Makhtal (population, 4,476) is the head-quarters. The land revenue in 1901 amounted to 1·8 lakhs. In 1905 the *tāluk* was enlarged by the addition of some villages from Nārāyanpet, but lost 31 villages to Yādgīr in Gulbarga. The town of Nārāyanpet is now included in this *tāluk*, which forms the borderland between the Carnatic and the Telingāna country.

Makhu.—Town in the Zīra *tahsīl* of Ferozepore District, Punjab, situated in 31° 6′ N. and 75° 4′ E., 30 miles north-east of Ferozepore town. Population (1901), 1,355. The municipality was created in 1867. The income during the ten years ending 1902-3 averaged Rs. 1,100, and the expenditure Rs. 1,000. In 1903-4 the income was Rs. 1,500, chiefly from octroi; and the expenditure was Rs. 1,000.

Makrai.—Feudatory State in the Central Provinces, lying between 21° 58′ and 22° 14′ N. and 76° 57′ and 77° 12′ E., within the Hardā *tahsīl* of Hoshangābād District, with an area of 155 square miles. The State contains some rich villages in the open valley of the Narbadā; but the greater part of it is situated on the lower slopes of the Sātpurā range, consisting of low hills covered with forest, of which teak, *sāj* (*Terminalia tomentosa*), and *tinsā* (*Ougeinia dalbergioides*) are the principal trees. The head-quarters of the State are at Makrai, which contains an old hill-fort, and is 15 miles from Bhiringī station and 19 miles from Hardā on the Great Indian Peninsula Railway. The ruling family, who are Rāj Gonds, claim a high antiquity of descent and a jurisdiction extending in former times over the whole of the Hardā *tahsīl*. There is, however, no historical evidence in support of their pretensions, and all that is known is that they were deprived by Sindhia and the Peshwā of the forest tracts of Kālībhīt and Chārwa. The present chief, Rājā Lachū Shāh, *alias* Bharat Shāh, was born in 1846 and succeeded in 1866. He was temporarily set aside for mismanagement in 1890, but reinstalled in 1893, when he appointed a Dīwān with the approval of the Chief Commissioner. The population of the State in 1901 was 13,035 persons, showing a decrease of 30 per cent. in the previous decade, during which it was severely affected by famine. Gonds and Korkūs form a considerable portion of the population. In 1904 the occupied area amounted to 62 square miles, of which 54 were under crops. The cropped area is said to have decreased by 3,000 acres since 1894. Wheat is the staple crop, and *jowār*, cotton, and gram are also grown. The revenue in 1904 amounted to Rs. 62,000, of which Rs. 43,000 was derived from land, the incidence of land revenue being Rs. 1–8 per acre. Other principal sources of revenue were forests (Rs. 5,500), excise (Rs. 5,000), and law and justice (Rs. 1,400). The expenditure in the same year was Rs. 64,000, of which Rs. 14,000 was expended in the maintenance of the ruling family, Rs. 6,100 on administration, Rs. 4,700 on police, Rs. 1,600 on education, Rs. 1,700 on medical relief, and Rs. 9,000 on miscellaneous items. The receipts and expenditure during the five years ending 1903 averaged Rs. 65,000 and Rs. 61,000 respectively. No tribute is paid to Government. The State contains 42 miles of unmetalled roads. It maintains five primary schools, the total number of pupils being 273. In 1901 the number of persons returned as able to read and write was 353. There is a dispensary at Makrai. The State is under the charge of the Deputy-Commissioner of Hoshangābād District, subject to the control of the Commissioner, Nerbudda Division.

Makrān (*Mākkurān*).—The south-western division of the Kalāt State, Baluchistān, lying between 25° 1′ and 27° 21′ N. and 61° 39′ and 65° 36′ E., with an area of about 26,000 square miles. It is

bounded on the east by the Jhalawān country and part of Las Bela; on the west by Persia; on the north by the Siāhān range, which separates it from Khārān; and on the south by the sea. The coast-line, which stretches dry and arid from Kalmat to Gwetter Bay, is about 200 miles long. Much of the country consists of mountains, the parallel ranges of which have a general direction east to west, enclosing narrow valleys. The more important are the MAKRĀN COAST, CENTRAL MAKRĀN, and SIĀHĀN RANGES. They gradually ascend in height, as they leave the sea, to an elevation of about 7,000 feet. Within them lie the cultivated areas of the country, including Kulānch; Dasht; Nigwar; Kech, also known as Kej, of which Kolwa, Sāmi, Tump, and Mand form part; and Panjgūr with Rakhshān. The Central Makrān hills contain the minor cultivable tracts of Buleda, Bālgattar, Parom, Gichk, and Rāghai. The most important rivers are the DASHT and the RAKSHĀN. They are dry throughout the greater part of the year, but carry heavy floods, and one of their features is the frequent pools from which water is drawn off for purposes of irrigation. Among streams of minor importance may be mentioned the Shādi Kaur, which enters the sea near Pasni; and the Basol, which breaks through the Makrān Coast Range. GWĀDAR and PASNI are the seaports, and a little traffic is carried on at Jīwnri. The coast is open and exposed, and owing to the shoaling of the water no large steamers can approach nearer than two miles from the shore.

Physical aspects.

The only information we possess about the geology of the country is derived from Dr. Blanford's observations[1]. It is known to contain a large development of eocene flysch (Khojak shales), while along the coast the Siwāliks include numerous intercalations of marine strata, known as the Makrān group, containing rich fossil fauna of upper miocene age. The coast appears to coincide with a line of faulting, and the mud volcanoes, which occur near it, are probably connected with this fracture. The vegetation of the country is similar to that which occurs generally throughout Southern Baluchistān, consisting of an ill-favoured, spiny scrub. Such species as *Capparis aphylla*, *Salvadora oleoides*, *Zizyphus Jujuba*, *Prosopis spicigera*, *Acanthodium spicatum*, *Tamarix articulata*, several kinds of *Acacia*, and many *Astragali* are common. The mangrove grows in the swamps on the coast. Sind ibex and mountain sheep are common in the hills, and 'ravine deer' (gazelle) along their skirts. An occasional leopard is killed, and wild hog are to be found in places.

The climate is marked by three zones of very different character. Along the coast it is uniform and, though hot, not unpleasant. In Kech the winter is healthy and dry, but the heat in summer is intense

[1] *Records, Geological Survey of India*, vol. v; and *Eastern Persia* (1876).

and in remarkable contrast to the milder atmosphere of the coast. Panjgūr lies in the most temperate zone, with severe cold in winter and moderate heat in summer. The north wind (*gorīch*) is experienced everywhere throughout the year. It is scorching in summer and cutting in winter. During the winter Kech is subject to dense fogs, called *nod*; and, to guard against the damp and the mosquitoes, every native of Makrān possesses a mosquito-curtain. The rainfall is capricious and uncertain, and the country is liable to long periods of drought. Previous to 1904 good rainfall had not been received in Kolwa, Kulānch, and Dasht for five years, and this is said to be no uncommon occurrence. The two periods during which rain is expected are known as *bashshām* and *bahārgāh*. *Bashshām* brings the summer rains, between May 15 and September 15, which generally affect the eastern side of the country. The north and west are more dependent on the winter rains (*bahārgāh*), falling between November and February.

History.

Makrān is generally known as Kech-Makrān, to distinguish it from Persian Makrān. Kech-Makrān and Persian Makrān together constitute the Makrānāt, a term occurring in several histories. The etymology of the name is uncertain. By some Makrān is said to be a corruption of *māki khorān*, 'fish-eaters,' identifiable with the *Ichthyophagi* of Arrian. Lord Curzon considers the name to be Dravidian, and remarks that it appears as 'Makara' in the *Brihat Sanhita* of Varāha Mihira in a list of tribes contiguous to India on the west. To the Greeks the country was known as Gedrosia. Lying on the high road from the west to the east, Makrān is the part of Baluchistān round which its most interesting history centres. Legendary stories tell of the marches of Cyrus and Semiramis through its inhospitable wastes, marches which Alexander sought to emulate when he made his famous retreat from India in 325 B.C., so graphically described by Arrian. The *Shāhnāma* relates how Kaikhusrū of Persia took the country from Afrāsiāb of Turān; and the memory of the former, and of his grandfather Kai-Kaus, is preserved in the names of the Khusravi and Kausi *kārez* in Kech. But the suzerainty over Makrān gravitated sometimes to the west, and sometimes to the east. At one time the Sassanian power was in possession; later we hear of its conquest by Rai Chach of Sind. The Arabs, in the seventh century, made themselves masters of the country; but, on the decline of the Khalīfat, it disappears from authentic history until Marco Polo mentions it about 1290 as the most westerly part of India under an independent chief. Local tradition relates that of the indigenous races the Rinds, Hots, and Maliks successively held sway in the country after the Arabs; the Maliks were followed by the Buledais, who in their turn were ousted

by the Gichkīs from India. In the time of Ahmad Shāh Durrāni, the country was reckoned in the province of Kirmān. Owing to internal dissensions, the Gichkīs fell under the suzerainty of Kalāt in the middle of the eighteenth century; and Mīr Nasīr Khān I acquired the right to half of the revenue of the country, besides extending his conquests westward into Persian Makrān. In 1862 Makrān came into the prominent notice of the British Government in connexion with the construction of the Indo-European Telegraph line, and a British officer was stationed at Gwādar from 1863 to 1871. Meanwhile Persia was extending her power eastward, and in 1879 it was found necessary to depute Colonel Goldsmid to settle the western boundary. Internally matters had gone from bad to worse, owing to the disputes between the Khān of Kalāt and the dominant races, the Gichkīs, Nausherwānis, and others, until at length a settlement was effected by Sir Robert Sandeman in 1884. The interference of the British Government has ever since been constantly required, and frequent visits have been paid to the country by European officers supported by escorts. In 1891 Mr. Tate, of the Survey of India, was appointed as the Khān's representative; but he was withdrawn in 1892, being succeeded by a Hindu Government official as the Khān's *nāzim*. A rising of the Makrānis took place in 1898, when the *nāzim* was temporarily captured, but the rebels shortly afterwards received a severe lesson at the fight of Gokprosh. A Brāhui of good family was thereupon appointed *nāzim*. A disturbance in 1901 led to another small expedition, which captured Nodiz fort. An Assistant Political Agent, who is *ex-officio* commandant of the Makrān Levy Corps, has been posted to Panjgūr since 1904.

Population.

From careful inquiries made in 1903 the population of Makrān was estimated at about 78,000. The permanent villages number 125, the chief of which are Turbat, the head-quarters of the administration, GWĀDAR, PASNI, and Isai. The more important villages are those clustering round the forts, which number fifteen. The population may be divided into five classes: the dominant races; the middle-class cultivators, generally known as Baloch; cultivators of irrigated lands, menials, and artisans, called Darzādas, Nakībs, and Loris; fishermen, known as Meds and Koras; and dependants of servile origin. It is distributed into groups, each of which lives independently of the rest; and the democratic tribal system, which is so strongly prevalent in other parts of the Kalāt State, is here non-existent. The dominant races include the Gichkīs, Nausherwānis, Bīzanjaus, and Mīrwāris, the whole of whom probably do not number more than about 500 persons. Their influence is due either to their acquisition of the country by conquest, or to the fact that they represent the ruling power in Kalāt. They are strictly endogamous, and Gichkīs born of Baloch mothers are known as *tolag*, i.e. 'jackal'

Gichkīs, and lose much of their social status. The Baloch are the peasant proprietors; the more important are the Hot, Kauhdai, Shehzāda, Kalmati, and Rais. The Darzādas and Nakībs are regarded as of aboriginal descent. They are courageous and of fine physique. Of the coast population, the Meds are fishermen and the Koras seamen who make voyages in their vessels to distant countries. Servile dependants abound, and do much of the cultivation and all the household work for men of means. Many of them are Baloch or descendants of Baloch who were captured in the frequent raids which took place in pre-British days. About half of the people are Sunni Muhammadans and the other half Zikris, a curious sect whose alleged incestuous and other immoral practices appear to have been much exaggerated. The language of the country is Baluchī. The majority of the population live by agriculture. Other occupations are flock-owning, seafaring and fishing, weaving, and pottery-making.

Agriculture.

Most of the cultivable land consists of 'dry-crop' area. Irrigation exists in Kech and Panjgūr, which could probably be improved and developed. Its sources are underground channels (*kārez*), channels cut from pools in rivers (*kaur-jo*), and springs. The *kārez* in use number 127, and the channels cut from rivers 118. The best soil, known as *milk*, consists of a soft white clay. When it contains a mixture of sand, it is known as *zawār*. The principal spring crops (*jopāg*) are wheat and barley. Minor crops include beans and pulses. The chief autumn crop (*er-aht*) is *jowār*; rice is cultivated in Kech, Buleda, Panjgūr, and Zāmurān; while Tump, Dasht, and Kulānch produce cotton. The date, however, is the crop *par excellence* of Makrān, and the best are said, even by the Arabs, to surpass those of Basra. The cultivators are well versed in the artificial impregnation of the date-spathes, on which the quality of the produce depends. *Amen*, the date-harvest from July to September, is the pivot round which the thoughts of all the people of Makrān centre, and is a signal for a general influx of all the inhabitants of the surrounding country to Kech and Panjgūr. Horses, camels, cows, donkeys, every beast and every man lives on dates. *Laghati*, or compressed dates, constitutes the staple food of the poor. Those preserved with date-juice in earthen jars, called *humb*, are much relished everywhere. More than 300,000 date-trees are assessed to revenue by the Khān, but the actual number exceeds this figure. The Makrāni is an able, though indolent, cultivator, and with the introduction of peace and security agriculture will doubtless develop.

Horse-breeding is not so popular as elsewhere in Baluchistān, and few mares are kept. The breed of cattle is small and generally of a brown colour. Makrān donkeys are known for their fleetness. Goods are carried chiefly by camels, which are available everywhere except

along the coast. The commonest sheep in the country are white. Brown and grey sheep, known as *bor* and *kīrg*, are especially valued for their wool, which is made into overcoats (*shāl*). Four-horned sheep are not uncommon in Dasht and Nigwar. No system of forest reservation has yet been introduced. The commonest trees are the tamarisk, which abounds in river-beds, and the acacia. No minerals of economic value have yet been found.

Trade and communications.

The people comprising the artisan class are generally landholders also. They have no stock in trade, and merely supply manufactured articles from the material furnished to them. The weaving industry is moribund, owing to the importation of European cloth. A few coarse cottons are, however, still manufactured. Kerchiefs, used by the women to put over their hair, are made from floss silk obtained from Sarbāz in Persia. Horse-cloths, sword-belts, and shoes are embroidered in silk. The pottery is of the roughest description, consisting of round pitchers and earthen jars.

In 1902–3 the imports to the Makrān ports from India were valued at 6½ lakhs and the exports at 7 lakhs. These figures, however, include the trade with the ports of Sonmiāni and Ormāra in Las Bela. No statistics are available regarding the trade which is carried on with places in the Persian Gulf, Arabia, and Africa. The chief centres are Gwādar, where the largest transactions take place, Pasni, Turbat, and Isai. Wholesale trade is carried on entirely by Hindus from Sind and Khojas from Cutch Māndvi. The retail trade is mostly in the hands of Hindus, but a few of the indigenous inhabitants and some Bābis from Kalāt are also engaged in it. The principal exports are raw wool, hides, cotton, matting, dates, salted fish, fish-maws, and shark-fins; and the chief imports are piece-goods and grain, including large quantities of wheat, rice, and *jowār*.

The communications consist solely of caravan routes, most of which are exceedingly bad, especially those from north to south, which cross the hill ranges at right angles. The main road from Quetta to Bāmpūr in Persia passes through the Panjgūr valley; another important route between Karāchi, Las Bela, and the west traverses the Kolwa and Kech valleys and eventually also reaches Bāmpūr. Routes from Gwādar and Pasni converge on Turbat northwards. The latter has been recently improved under skilled supervision, and is being continued to Panjgūr through Buleda. Another track from Turbat reaches Panjgūr through Bālgattar. Steamers of the British India Steam Navigation Company carrying the mails call at Pasni and Gwādar on alternate weeks. Both these places have post and telegraph offices.

The production of grain in the country is probably insufficient for

its requirements, but a good date-harvest is enough to meet the needs of the scanty population for the year. In times of scarcity the inhabitants, rapidly dispersing, find a plentiful demand for labour at Karāchi and in Rājputāna.

Administration. The administration of the country is conducted, on behalf of the Khān of Kalāt, by an officer known as the *nāzim*. He is assisted by four *naibs*, who are stationed in Tump, Kolwa, Pasni, and Panjgūr. Irregular levies are maintained, numbering 79 horse and 81 foot, at a total cost of about Rs. 32,000 per annum. The infantry hold the important forts of Turbat, Nasīrābād, and Tump in Kech, Bit in Buleda, and Isai in Panjgūr. All persons, including holders of revenue-free grants, are bound to assist the *nāzim* with armed men when occasion requires. For this purpose allowances amounting to Rs. 6,000 per annum are granted to certain leading men by the Khān. A telegraph subsidy of Rs. 5,520 is paid by the British Government for the protection of the Indo-European Telegraph line. A Levy Corps of 300 men under two British officers, with its head-quarters in Panjgūr, is being stationed along the western frontier. Its cost, about 1·2 lakhs per annum, is borne by the British Government. Disputes are generally referred to *kāzīs* for decision according to the Muhammadan law. Important awards are confirmed by the Political Agent in Kalāt. Crime is conspicuous by its absence, the number of criminal cases decided in 1900–1 being only 63. The total cost of administration, including the pay of the irregular levies, is about Rs. 80,000 per annum.

It has been stated that Nasīr Khān I obtained from the Gichkīs only a right to the collection of half the revenues of the country. In the course of the long series of struggles between the Khāns of Kalāt and the dominant groups which followed, the position gradually changed; and the Khān has now obtained, by confiscation, exchange, &c., the exclusive right to the revenue of some places, while retaining the right to a moiety in others. Elsewhere, the dominant classes hold exclusive rights to collect. The revenue is taken by the appraisement of cereals, the State share being generally one-tenth; by contract; and by a cash assessment on irrigated lands, known as *zarr-e-shāh*, which has now degenerated into a poll-tax of very unequal incidence. A cash assessment is levied on date-trees, and grazing tax is collected at the rate of one sheep in 40 or 50 and one seer of *ghī*. Among other receipts are transit dues, tithes in kind on all fresh fish caught on the coast, and duties on imports and exports. In 1902–3 the total revenue derived from the country by the Khān was Rs. 45,500, to which a grant of Rs. 36,700 was added by him to meet the expenses of administration.

A little education is imparted by a few ignorant *mullās* and *kāzīs*, generally Darzādas and Afghāns. A Hospital Assistant is attached to

the *nāzim*, who affords medical relief in a few cases. The people are very superstitious and attribute almost all diseases to evil spirits, for casting out which special processes are employed. Night-blindness, which is attributed by the people to their diet of fish and dates, is common. Fevers, sore eyes, and ulcers are of constant occurrence Cholera and small-pox not infrequently visit the country. Vaccination is unknown, but inoculation is popular, the usual fee being four annas. The people thoroughly understand the value of segregation, and careful precautions are taken against the transport of infection by flies.

[Ross, *Memorandum on Makrān* (Bombay, 1867); *East and West*, vol. iii, No. 31, May, 1904, contains an account of the ancient history of the country by Shams-ul-ulama J. J. Modi.]

Makrān Coast Range.—Mountain range in Baluchistān, known locally as Bahr-i-Garr, which skirts the Arabian Sea for 280 miles between 25° 22′ and 26° 0′ N. and 61° 44′ and 66° 3′ E. Its width varies from 35 to 70 miles. The prevailing rock is a pale-grey clay or marl, occasionally intersected by veins of gypsum and interstratified bands of shelly limestone and sandstone. The parallel ranges of the system descend gradually from east to west. Everywhere defiles, rents, and torrent beds are to be seen. The principal ridges from east to west are Dhrun (5,177 feet), Gurangatti (3,906 feet), Tāloi (3,022 feet), and Gokprosh, whose highest point is Janzāt (4,345 feet). Gokprosh is famous as the scene of the defeat of the Baloch rebels in 1898. Neither permanent inhabitants nor cultivated lands exist. A few stunted trees and scrub jungle compose the only vegetation. Sind ibex and mountain sheep are plentiful.

Makrān Range, Central.—Mountain range in Baluchistān, occupying the centre of Makrān, between 26° 3′ and 27° 39′ N. and 62° 19′ and 65° 43′ E. Springing from the hills of the Jhalawān country its two well-defined and gradually descending ridges, the Zangi Lak or Dranjuk hills (6,166 feet) on the north and the Koh-i-Patandar (7,490 feet) with its continuation the Kech Band (3,816 feet) on the south, run west-south-west for about 250 miles. The tumbled mass in the centre merges on the west into the Zāmurān hills, and the northern portion stretches into the Persian Bāmpusht range. The width is uniform, about 45 miles. Sandstone is the prevailing rock, sometimes associated with shaly strata and limestone. Within the range lie the valleys of the Rāghai, Gichk, and Gwārgo rivers, Bālgattar, Buleda, and Parom. The Zāmurān hills are alone inhabited, and have some cultivation and vegetation.

Makrāna.—Village in the Parbatsar district of the State of Jodhpur, Rājputāna, situated in 27° 3′ N. and 74° 44′ E., on the Jodhpur-Bīkaner Railway. Population (1901), 5,157. The village derives its importance from its marble quarries, which have been noted for

centuries, and from which the material used in the construction of the Tāj Mahal at Agra was obtained. It has been proposed to use this marble for the Victoria Memorial Hall at Calcutta. The quarries vary in depth from 30 to 75 feet, and the yearly out-turn averages about 900 or 1,000 tons. The marble is excavated by blasting, and is then cut into required sizes by means of steel saws. The chips and dust left behind after the blocks have been hauled to the surface are burnt into lime, and used for the finer kinds of plastering. There are now twenty-six quarries being worked, which give employment to about 100 labourers daily, mostly of the Silāwat caste of Muhammadans.

Maksudābād.—Old name of MURSHIDĀBĀD TOWN, Murshidābād District, Bengal.

Maksudangarh (*Naiākila*).—Petty State in Central India, under the Bhopāl Agency, with an area of about 81 square miles. It lies in Mālwā and takes its name from the chief town. The State originally formed a part of Rāghugarh. In 1776 Rājā Balwant Singh of Rāghugarh granted the tract to his brother Budh Singh, whose son Durjan Sāl (1795–1811) considerably extended his possessions, founding a State of which the town of Bahādurgarh (now Isāgarh in Gwalior) was the capital. Early in the nineteenth century his lands were seized by Sindhia, but were in part restored by Sindhia's general, Jean Baptiste Filose, who in 1816 installed Beri Sāl Khīchī, of the Lalāwat branch of the family, as chief of Maksudangarh. Since then it has existed as a separate State, feudatory to Gwalior, to which, however, it pays no tribute. Its position is thus peculiar, as the chief does not hold under a British guarantee. Since the establishment of the Bhopāl Agency, however, the internal administration has invariably been conducted under the supervision of the Political Agent, without interference on the part of the Gwalior Darbār. The present chief, Raghunāth Singh, succeeded in 1864 at the age of fifteen. The State, which had been mismanaged, was taken under superintendence by the Political Agent in 1880, with the concurrence of the Mahārājā Sindhia, and is still under supervision. The chief bears the hereditary title of Rājā.

The population was: (1891) 14,422, and (1901) 14,284, giving a density of 176 persons per square mile. Hindus number 12,214, or 85 per cent.; Animists, 1,661, or 12 per cent.; and Musalmāns, 398. The State contains 80 villages. About 16 square miles are cultivated. The soil is fertile and bears good crops, but the absence of roads prevents any great development of trade. Opium, the most important product, has to be taken more than 50 miles by country track to the railway. The total revenue is about Rs. 37,000, of which Rs. 28,000 is derived from land.

The chief town is Maksudangarh, situated in 24° 4′ N. and 77°

18′ E., about 1,700 feet above sea-level. Population (1901), 2,222. It is a small place, formed of an irregular congeries of houses dominated by the fort called Naiākila or the 'new fort,' which was built by Rājā Vikramāditya of Rāghugarh about 1730. A school, a hospital, a jail, and a British post office are situated in the town, which is 30 miles by fair-weather road from Biaora on the Bombay-Agra high road.

Makurti.—Peak in the KUNDAHS in the Ootacamund *tāluk* of the Nīlgiri District, Madras, situated in 11° 22′ N. and 76° 31′ E., at an elevation of 8,403 feet above sea-level. This is a favourite point for excursions from Ootacamund, the ascent being made by a zigzag path cut on the eastern face. Its western side is an almost unbroken precipice, several hundred feet in depth. The spirits of men and buffaloes are supposed by the Todas to take a leap together into Hades from this peak.

Malabar (Malayālam, or Malayam, 'the land of hills').—Perhaps the most beautiful, and certainly one of the richest and most fertile, of the Districts of Madras, lying on the west coast of the Presidency, between 10° 15′ and 12° 18′ N. and 75° 11′ and 76° 51′ E. Its ancient name was Kerala, which included also the District of South Kanara and the Native States of Cochin and Travancore; the form Malabar appears to be derived from Arabic sources, the termination *bar* meaning 'country.'

Physical aspects.

Excluding the LACCADIVE ISLANDS, the District has an area of 5,795 square miles, and stretches for a distance of 150 miles along the Arabian Sea from South Kanara in the north to Cochin State on the south. On the east it is separated from Coorg, the Nīlgiris, and Coimbatore by the Western Ghāts, which form a continuous mountain barrier from 3,000 to 8,000 feet high, at a distance from the coast which varies from 20 miles in the north to 60 in the south, and are interrupted only at the Pālghāt Gap, 16 miles wide, the one break in the whole of the range. In two places the limits of the District extend beyond the mountain wall: namely, in the Wynaad *tāluk*, a plateau 3,000 feet above sea-level, which really forms part of the great Mysore table-land; and in the ATTAPĀDI and Silent Valleys, which lie behind the irregular ridge stretching from the KUNDAHS to the northern pillar of the Pālghāt Gap. The most conspicuous peak in the Malabar hills is the Vāvūl Mala or 'Camel's Hump,' 7,600 feet high, which heads a magnificent buttress thrown out to the south-west below the Tāmarasseri pass, where the general line of the Ghāts recedes eastward. This spur constitutes the right flank of the NILAMBŪR Valley, while the left is formed by the Kundahs, which rise to over 8,000 feet in the Nīlgiri Hills and Makurti peaks on the Nīlgiri boundary.

The Ghāts are thickly wooded in most parts, and contain mountain scenery of unrivalled beauty, many of the peaks being precipitous and inaccessible. The country below presents the general appearance of a sea of forest-covered hills. Long wooded spurs with deep ravines run down from the main range, and are succeeded by gentler slopes, covered with low jungle, and by bare downs with gradually widening valleys of luxuriant cultivation. Nearer the coast the laterite downs shelve suddenly into rice plains and lagoons fringed with coco-nut palms. Along the coast is a level strip seldom more than 2 or 3 miles wide. It was thus described by Ibn Batūta as early as the fourteenth century: 'The whole of the way by land [down the coast] lies under the shade of trees, and in all the space of two months' journey there is not one span free from cultivation; everybody has his garden, and his house is planted in the middle of it.'

With the exception of three tributaries of the Cauvery—the Bhavāni, which rises in the Attapādi Valley and flows through Coimbatore, the Kabbani and the Rāmpur, which rise in the Wynaad and traverse Mysore—all the numerous rivers of Malabar flow westward from the Ghāts to the sea, where they are backed up by littoral currents and discharge into a line of backwaters and lagoons parallel to the coast. Most of the rivers are navigable by small boats for some miles beyond tidal influence, and many of the lagoons are connected by small canals; there is thus an extensive system of inland waterways of great commercial importance. The longest of the rivers is the Ponnāni, but the most important are the Beypore and the Valarpattanam; all three are connected with extensive systems of backwaters.

The seaboard is entirely open except in the extreme north at Mount Delly, a massive laterite island hill, celebrated as the first point of India sighted by the Portuguese ships. South of this as far as Calicut small headlands of laterite cliff, forming shallow bays, alternate with long stretches of sand; beyond Calicut is one unbroken stretch of sand. The sea bottom shelves very gradually, and there is no deep water within three miles of the shore. Thereafter it plunges suddenly down to 1,000 fathoms and more. Small craft find shelter in the mouths of the bigger rivers; while at Calicut, Quilāndi, and Cochin shifting mudbanks afford a calm roadstead in all weathers.

The greater part of the low country is covered with laterite, but the underlying rock consists of fine-grained gneisses, quartzose, garnetiferous, and quartzo-felspathic. The laterite is of two kinds: namely, vesicular, derived from the decomposition of the gneiss *in situ*; and pellety, a detrital rock formed of the débris of the vesicular variety. The Wynaad plateau is composed chiefly of rocks of the charnockite series with biotite gneiss and biotite granite, in the former of which

auriferous reefs occur. Veins of pegmatite, carrying ruby mica of fair size and quality, are found in the south of it.

Owing to the perennial humidity of the climate, the flora of the District is very luxuriant. It is similar in its general character to that of Ceylon, but varies with the many changes in altitude and moisture which occur. Palms, bamboos, the jack-tree, and the pepper-vine are among the more characteristic plants of the lower levels. Higher up are heavy evergreen forests full of large timber; and tree-ferns, orchids, and mosses are plentiful. The *Hortus Malabaricus* of Van Rheede, a Dutch governor of this part of the country, is the earliest treatise on the flora of Southern India and describes as many as 794 different plants.

The fauna of Malabar is extremely varied. Throughout the Ghāts and the Wynaad are found the usual large game common to the South Indian hills, such as tigers, bears, leopards, bison, *sāmbar*, and hog. Elephants abound, especially in the Wynaad and Nilambūr forests, where large numbers are caught in pits by the Forest department. Spotted deer are confined to the hills at the foot of the Ghāts, and the Nīlgiri ibex (*Hemitragus hylocrius*) to the Pālghāt hills and the Kundahs. Crocodiles and otters abound in the backwaters, and a large number of edible fish of many kinds are caught all along the coast.

The climate, though excessively damp, is on the whole healthy; but the Wynaad and lower slopes of the Ghāts, with the country immediately at the foot of the hills, are malarious, especially from February to June. The temperature of the low country varies little the whole year round, seldom rising as high as 90° or falling below 70°; there is a constant sea-breeze during the day in the hottest weather. The mean temperature for the year at Calicut is below 81°.

The rainfall is heavy and unfailing throughout the District, and the seasons are regular. Thunderstorms begin among the hills in April. In May the south-west monsoon sets in, and banks up the clouds against the Ghāts. The rains break early in June and continue to the end of September, when the south-west monsoon dies away. Three-fourths of the total fall is received during these four months. In October the north-east monsoon sets in, the rains slacken, and by December the dry season is established. The rainfall is lightest in Pālghāt, where the gap in the Western Ghāts prevents the accumulation of so much moisture as elsewhere, and heaviest among the high hills in the south of the Wynaad. The annual fall for the whole District averages 116 inches.

Famine, therefore, is practically unknown; while, since the rapid rivers have cut deep beds for themselves, floods are rare. Nor is there any record of serious natural calamities of other kinds, such as cyclones or earthquakes, except the storm-wave of 1847, which did much damage on the LACCADIVE ISLANDS and a little on the mainland.

The early history of Malabar is inseparable from that of the adjoining State of Travancore. Identical in people, language, laws, customs, and climate, the whole of ancient Kerala is homogeneous in every respect, except in the accident of a divided political administration. To trace the successive waves, whether of invasion or of peaceful colonization, which are now represented by the Cherumans and Tīyans, Nāyars and Nambūdris, overlying one another in social strata, or to examine the physical justification for the legendary origin of this interesting country, is beyond the scope of this article.

History.

It is probable that the later flood of immigration which gave to Kerala or CHERA its Nāyars and Nambūdris was part of a general movement southward, which in prehistoric times brought the best of its people and its Brāhmanism to Southern India. It is also likely that the physical formation of Kerala was due to some natural process, gradual or convulsive, which gave rise to the local legend of its having been the gift of the ocean. In very ancient times a traffic sprung up between the Mediterranean and the roadsteads of Malabar. The Phoenicians came by way of the Persian Gulf and afterwards by the Red Sea. Possibly the Jews made the same voyage in the reigns of David and Solomon. The Syrians under the Seleucids, the Egyptians under the Ptolemies, the Romans under the emperors, the Arabs after the conquest of Egypt and Persia, the Italians, more especially the Republics of Venice, Florence, and Genoa, have each in turn maintained a direct trade with the western ports of the Madras Presidency. In the early political history of Malabar the first figure that emerges from the mist of tradition is Cheramān Perumal, the last of the sovereigns of Chera. He is represented as voluntarily resigning his throne, subdividing his kingdom, and retiring to Mecca to adopt Islām. The date of Cheramān has been the subject of much discussion; but recently information has been received that his tomb still exists at Sabhai on the Arabian coast, and the dates on it were said to indicate that he reached that place in A.H. 212 (A.D. 827) and died there in A.H. 216 (A.D. 831). His departure from Malabar may possibly have taken place on August 25, 825, which is the first day of the Kollam era still in use on the coast. The epoch popularly assigned to him is the middle of the fourth century. It is probable that, if the resignation and partition actually occurred, they were forced on the ruler by the growing power and turbulence of his feudatory chiefs and by the encroachments of the Western Chālukya dynasty. From this time Malabar remained divided among numerous small chieftains, of whom Kolattiri or Chirrakkal in the north and the Zamorin (or Sāmūri) in the south were the most conspicuous. It was with these last two, and with the Cochin Rājā, that the early Portuguese adventurers first entered into relations.

Vasco da Gama visited Malabar in 1498, and his successors speedily established themselves at COCHIN, CALICUT, and CANNANORE. In 1656 the Dutch appeared in the Indian seas to compete with the Portuguese for the trade of the country. They first conquered Cannanore, and in 1663 captured the town and fort of Cochin, as well as TANGASSERI, from their rivals. In 1717 they secured the cession of the island of CHETWAI from the Zamorin. But in the next half-century their power began to wane: Cannanore was sold to the Cannanore family, represented at that time by Alī Rājā, in 1771; Chetwai was conquered by Haidar in 1776, and Cochin captured by the English in 1795. The French first settled at Calicut in 1698. In 1726 they obtained a footing in MAHÉ, and in 1751 acquired Mount Delly and a few outposts in the north, all of which fell into the hands of the English in 1761. Their frequent wars with the English ended in the destruction of their commerce in the East, Mahé having been thrice taken and thrice restored. The English established themselves in 1664 at Calicut, in 1683 at TELLICHERRY, and in 1684 at ANJENGO, Chetwai, and other commercial factories. Tellicherry became their chief entrepôt for the pepper trade; and so rapid was the extension of their power and influence that in 1737 the English factors mediated a peace between the princes of Kanara and Kolattiri. They obtained the exclusive privilege of purchasing the valuable products of the country: namely, pepper, cardamoms, and sandal-wood.

For nearly a century the Marāthā pirates under Angriā and other chiefs infested the coast, and ravaged even inland towns by sailing up the Beypore, Ponnāni, and other rivers, till 1756, when they were destroyed by a British expedition. The Ikkeri or Bednūr Rājā in 1736 and 1751 invaded the country of Kolattiri and imposed fines on the northern division. The Pālghāt State, after dismemberment by the Rājās of Calicut and Cochin, sought the alliance of Mysore, then ruled by its Hindu Rājā, who stationed a subsidiary force in Pālghāt. It was this connexion which afforded Haidar Alī, when he became ruler of Mysore, a pretext for invading Malabar in defence of his ally, the Pālghāt Achchan. In 1760 Haidar sent an army to Pālghāt and descended the *ghāts* through Coorg in person. Again in 1776, at the instigation of Alī Rājā, the Māppilla chieftain of Cannanore, he made an easy conquest of the whole country, the Rājās flying into the jungles or taking refuge in the English settlement of Tellicherry. They, however, took advantage of the war between Haidar and the English in 1768 to reinstate themselves until 1774, when Haidar again passed down the *ghāts* with two armies and completely subjugated the country, the Hindu chiefs retiring to Travancore and Tellicherry.

On war breaking out between the English and the French in 1778, Haidar resented the asylum that had been granted by the former to refugees in 1769, and began hostilities by investing Tellicherry fort. The siege was prosecuted in a fitful manner for two years till reinforcements arrived from Bombay, when it was raised by a sortie, the success of which was so complete as practically to annihilate the besieging army. Peace intervened between 1784 and 1788, when Tipū Sultān, son and successor of Haidar, descended the *ghāts* and commenced a religious persecution of the people. This produced a rebellion; and, on the breaking out of the war between him and the British in 1790, the refugee chiefs were encouraged by proclamation to join the British cause. The contest terminated in the cession of Malabar (except the Wynaad) to the Company by the Treaty of Seringapatam in 1792. Since that date the District has remained in the peaceable possession of the British, except for the rebellion of the Kottayath (Pychy) Rājā in the north and various Māppilla chiefs in the south (1795–1805). The Wynaad fell to the British on the death of Tipū Sultān in 1799.

Prehistoric menhirs and dolmens, in which have been found bones, pottery, iron implements, and beads, are scattered all over the District. Peculiar to Malabar are the *topi kallu* ('hat-stones'), *kuda kallu* ('umbrella-stones'), and bee-hive sepulchres cut in the laterite rock. A large number of Roman coins of the early emperors have been found in Kottayam, and a few elsewhere. The architecture of the temples, both Hindu and Muhammadan, perhaps suggests Mongolian influence; the most striking feature is the reverse slope of the eaves above the veranda, a peculiarity which is found all down the West Coast but nowhere else in India south of Nepāl. Most of the temples are small; the finest are at GURUVĀYŪR, CALICUT, and TALIPARAMBA.

Population.

During the last thirty years the population of the District has advanced steadily if not rapidly. In 1871 it was 2,261,250; in 1881, 2,365,035; in 1891, 2,652,565; and in 1901, 2,800,555. Malabar is now the third most populous District in the Presidency, and, notwithstanding the large areas of hill and forest included within its limits, is more densely peopled than any other except the rich delta of Tanjore. The rate of increase is little affected by outside influences, famine being practically unknown, emigration small, and immigration a negligible quantity. The District contains ten *tāluks*, of which particulars, according to the Census of 1901, are shown in the table on next page, and also includes the LACCADIVE ISLANDS.

Each *tāluk* is divided into *amsams* (parishes) instead of villages, and these are again subdivided into *desams*. The custom by which each family lives in its own separate homestead is inimical to the growth of towns, and there are only seven in all Malabar: namely, CALICUT, TELLICHERRY, PĀLGHĀT, CANNANORE, COCHIN, BADAGARA, and PON-

NĀNI. Of every 100 of the people 68 are Hindus, 30 (a far larger proportion than in any other District) Musalmāns, and 2 Christians. Malayālam, a language which is confined to the Malabar coast, is the prevailing vernacular, though 4 per cent. of the total population speak Tamil. Mahl is the language of the islanders of MINICOY, one of the Laccadives.

Tāluk.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages (*desams*).				
Kottayam . .	481	1	223	209,516	436	+ 7·2	28,249
Chirakkal . .	677	1	273	320,107	473	+ 2·9	32,810
Kurumbranād .	505	1	339	327,310	648	+ 7·6	39,119
Wynaad . .	821	...	58	75,149	92	− 2·1	4,649
Calicut . .	379	1	180	255,612	674	+ 7·5	33,447
Ernād . .	979	...	221	357,142	365	+ 3·9	22,745
Walavanād. .	882	...	316	351,112	398	+ 7·0	30,611
Pālghāt . .	643	1	136	390,098	607	+ 4·8	37,335
Ponnāni . .	426	1	459	478,376	1,123	+ 6·5	45,517
Cochin . .	2	1	3	25,859	12,930	+ 9·0	6,011
Laccadive Islands	...	...	5	10,274	...	− 3·5	461
District total	5,795	7	2,213	2,800,555	481	+ 5·6	280,954

The Hindus of the District include 113,000 Tamils (30 per cent. of whom are Brāhmans), about 20,000 Telugus, and a sprinkling of other races; but the enormous majority consists of Malayālam-speaking castes peculiar to the country. The most numerous of these are the Tīyans (or Iluvans), the toddy-drawer caste, who number 661,000. Next come the Nāyars (391,000), originally the military caste of the District and still the aristocracy. They are followed by the Cherumans (246,000), the agricultural labourers of the country, who are often *adscripti glebae* in the strictest sense, and form one of the most unprogressive communities in the Presidency. The Kammālans (artisans) are the only other caste over 100,000 strong. The Nambūdri Brāhmans, though numbering under 20,000, deserve mention from their influential position. They are almost invariably landholders, often of large estates. Unlike most Brāhmans, they keep aloof from public affairs, and despise modern education; but they are the object of the deepest reverence from all other castes.

Space does not permit of a detailed account of the many ways in which Malayālam caste customs differ from those of the rest of the Presidency, but two peculiarities may be noticed. The first is the vitality of the doctrine of ceremonial pollution, which is elaborated in great detail and is still scrupulously observed except in the towns. There are regularly graduated degrees of distance within which one

caste is held to pollute another; and a high-caste man returning from his bath shouts out to warn others of his approach, so that they may step aside into the fields and not pollute him. The second is the prevalence of the Marumakkattāyam law, or system of inheritance through females, which makes a man's sister's children his nearest heirs. This is invariable among the Nāyars and kindred castes, and is followed by most of the Tīyans and Māppillas of North Malabar and by some of those of South Malabar. The custom presumably originated in the uncertainty regarding parentage that arose from the polyandry which was formerly widely practised and may still exist in isolated cases. Among the Hindu Marumakkattāyam castes, marriage consists in a union (*sambandham*) formed by a girl who has reached maturity with a man of her own or a higher caste, the main ceremonial being the presentation of a piece of cloth by the bridegroom. This union is dissolvable at will, and the children born of it belong to the mother's family (*tarwād*) and do not inherit their father's property. In 1891, in compliance with a movement among a section of the Nāyars, the Government appointed a Commission to consider how a more permanent form of marriage might be provided for Marumakkattāyam castes; and a law was enacted by which, if *sambandhams* were formally registered, the property of the parents could be bequeathed to the children of the union.

The Musalmāns of Malabar number 843,000, or more than one-third of all the followers of that faith in the Presidency. Of these, 806,000 are classed as Māppillas, a name originally applied to Arab traders and their descendants by the women of the coast, but now used to include all indigenous West Coast Muhammadans, among whom are comprised large numbers of converts from the lower Hindu castes, and descendants of the victims of Tipū's persecution. Of the remainder, 24,000 are Labbais, also a mixed race.

Eurasians are more numerous in Malabar than in any other District except Madras and the Nīlgiris.

The people of Malabar are less exclusively agricultural than those of other Districts. This is due to the fact that a large number live by fishing and fish-curing, wood-cutting, oil-pressing, rice-pounding, and making the palm-leaf hats and umbrellas which are universally used. The number of those who subsist by service in temples, astrology, and teaching is also above the average.

Of the 51,000 Christians in the District, 46,000 are natives and 4,000 Eurasians. The Native Christian Church of the West Coast, founded traditionally either by St. Thomas or by missionaries from Babylonia in the fourth century, appears to have been more or less independent till the sixteenth century, though acknowledging generally the supremacy of the Nestorian Patriarch of Babylon. After a long

struggle against the influence of St. Francis Xavier and various Jesuit and other Portuguese missionaries, culminating in the famous synod of Diamper (UDAYAMPERŪR) in 1599, the Church passed under the domination of the Pope; but with the rise of the Dutch power the greater portion of the original Native Church threw off its allegiance to Rome in 1653 and attached itself to the Jacobite Patriarch of Antioch. The Carmelite missionaries, who first came to the country in 1656, gradually won back a large number of the native Christians to Rome; and the remaining section, falling under the influence of the Church Missionary Society in the beginning of the nineteenth century, have split up into two bodies. The indigenous Church, therefore, is now represented by three organizations: namely, the Romo-Syrians, who acknowledge the Pope and are Roman Catholics, though they have their own Syrian rite; the Jacobite Syrians, who follow the Patriarch of Antioch; and the Reformed Syrians or St. Thomas Christians, who appoint their own bishops, and whose doctrines approximate to those of the Anglican Church.

The present Roman Catholic missionaries are Carmelite Fathers and Jesuits. The only Protestant mission is the Basel German Lutheran Mission, established in 1839. It has churches and schools in all the *tāluks* except Ernād and Cochin, and a congregation numbering about 6,000, or 12 per cent. of the Christian population.

Agriculture.

The agricultural conditions of Malabar differ from those of the East Coast as widely as do its physical features. The prevailing soil is a red ferruginous loam, but on the slopes of the Ghāts there is a rich layer of black mould formed of decayed vegetable matter. On the hills and plateaux of the low country the soil varies from rich loam to uncultivable laterite, the former being most prevalent in the Ernād, Walavanād, and Pālghāt *tāluks*, where there is extensive 'dry' (unirrigated) cultivation. The best rice crops of the District are grown in the deeper inland valleys, where a tenacious soil is enriched by the surface earth washed down from the hills. The shallower valleys contain a light loam, which becomes sandy as they broaden out near the coast, or clayey where they meet the bigger rivers and backwaters. Above the line of 'wet' cultivation there is as a rule a fringe of gardens, each with its homestead, often reaching to the very top of the hill-side; but in the southern *tāluks* the slopes are more frequently terraced and cultivated with 'wet crops' to a considerable height above the level of the valley. The soil of the level country near the coast is poor and very sandy, and subject to damage from salt-water floods. It is, however, peculiarly adapted to the growth of the coco-nut palm, with which the coast lands are thickly planted.

Two 'wet crops' are grown in most of the valleys with the help of

the two monsoons. The first (*kanni*) is sown in April and May and reaped in August and September, while the second (*makaram*) is sown in September and October and reaped in January and February. On some of the best lands a third crop (*punja*) is sown in February and reaped in May. On 'single-crop' lands one or other of the above is grown; but the cultivation season varies almost infinitely with the nature of the land and its irrigation facilities, and in some cases extends over ten months. In the better soils rice is usually planted out from nursery beds; elsewhere it is sown broadcast. 'Dry crops' are raised usually with the help of the south-west monsoon from May to August. *Modan*—rice grown on the open lower hills and in *parambas* (orchards)—is raised on the better soils once in two or three years, on the worse soils once in five years. On the best it is usually followed immediately by a crop of gingelly (*Sesamum indicum*) and another of *chāma* (*Panicum miliare*), the three crops occupying the land for more than eighteen months. *Punam*—a mixed crop of rice, millet, &c.—is raised once in seven or eight years on hill-sides roughly cleared by burning.

The 5,795 square miles of which the District consists include 18 square miles of 'minor *ināms*'; the rest, except the Laccadives and a small area held on special terms by Alī Rājā of Cannanore, is *ryotwāri*. There are no accurate statistics of the area under cultivation, &c.; but the extent cropped in 1903-4 (including temporary cultivation, i.e. the actual area cultivated for the year with 'dry crops') was about 2,200 square miles, or 38 per cent. of the total area. Of the remainder, the major portion consists of high hills, forests, and other uncultivable areas.

Rice is the staple food-grain, covering 60 per cent. of the net area cultivated. In gardens and *parambas*, which occupy nearly half the cultivated area, by far the most important crop is the coco-nut palm. Next come areca palms, plantains, and pepper, the latter being practically confined to the three northern *tāluks* and the Wynaad. Other garden products are jack, mango, palmyra palms, betel-vines, cinnamon, and many kinds of vegetables. Gingelly, *chāma*, *rāgi*, and various pulses are raised on the open hills and in *parambas*; ginger is a valuable 'dry crop' in Ernād, Walavanād, and parts of Ponnāni, and cardamoms in Kottayam and the Wynaad, while lemon-grass is being widely grown in Ernād. About 4,800 acres in the Wynaad are under coffee and 4,600 acres under tea.

No accurate statistics exist to show the extension in the area of holdings. Near the coast there is little cultivable waste, while inland the limits of cultivation are being steadily pushed back into the jungles. The Malabar ryot is very conservative in his methods of cultivation, and still generally confines himself to the use of straw- and leaf-manure

for 'wet' lands. Fish-manure is used in some gardens on the coast and in the Wynaad. The gardens could often be much improved by a more extended use of well-irrigation. No advantage has been taken of the Land Improvement Loans Act.

There are no important local breeds of stock. In the four southern *tāluks*, where cattle are comparatively numerous, the majority are imported from Coimbatore. Male buffaloes are widely used in cultivation. In the northern *tāluks* animals are imported from Coorg and Mysore, and they are bred to a small extent in the Wynaad. Cattle are fed mainly on rice straw.

The cultivation of the District depends on the practically unfailing rainfall, and there are no irrigation works of any importance. 'Wet' lands are irrigated where necessary by diverting into them the innumerable streams which flow down the valleys, and some of the high-lying fields by baling with *picottahs* from small reservoirs and wells. A few temporary dams are constructed on the upper waters of the Ponnāni river and its tributaries in the Pālghāt and Walavanād *tāluks*, and a little land is irrigated by baling from the same river throughout its course. Gardens are watered by hand from the wells which most of them contain.

Forests.

Nearly one-third of the total area of Malabar is occupied by forests The forest zone, which begins about 5 miles from the foot of the Western Ghāts and extends to the eastern boundaries of the District, includes both evergreen and deciduous growth. The former is found on the Ghāts and the slopes of the hill ranges in the north of the Wynaad, from a height of 500 feet upwards, the region of very heavy rainfall (over 200 inches). The principal timber trees in the evergreen forests are ebony, white and red cedar, *pun* (*Calophyllum inophyllum*), *irimbogam* (*Hopea parviflora*), *aini* (*Artocarpus hirsuta*), and jack (*Artocarpus integrifolia*); in the deciduous forests, teak, *vengai* (*Pterocarpus Marsupium*), *ventek* (*Lagerstroemia microcarpa*), black-wood (*Dalbergia latifolia*), *karimaradu* (*Terminalia tomentosa*), *irūl* (*Xylia dolabriformis*), as well as jack and *aini*. Minor forest produce includes cardamoms, dammar, honey, wax, gall-nuts, soap-nuts, gum kino, ginger, cinnamon, pepper, &c. Most of the forests are private property, and their produce has long formed an important source of wealth to the country; but continued unscientific forestry is denuding most of the hills of their valuable trees, as it has long ago denuded the bigger isolated hills in the plains.

The Government forests cover 454 square miles, and are divided into two divisions, North and South Malabar, each under a separate Forest officer. The former includes the Wynaad (199 square miles of forest) and Kottayam (32 square miles); and the latter Ernād (161), Walavanād (33), and Pālghāt (29). There are also about 80 square

miles of 'reserved' lands, which are mainly leased forests. The most important Reserves are in the north of the Wynaad and at Nilambūr (Ernād), where there are valuable teak plantations. The total receipts from Government forests in 1903–4 amounted to Rs. 1,19,000, including a considerable sum from the sale of trapped elephants.

The minerals of the District are now hardly worked at all. Iron ore is rudely smelted in small quantities in the east of Ernād and Walavanād. Gold seems to have been extensively worked by the natives in ancient times, both by surface washing and mining, in the valley of the Beypore river, one of the tributaries of which is called the 'Gold river,' and up the slopes of the Ghāts in East Ernād and South Wynaad. The soil throughout these parts is auriferous, and there are numerous reefs of considerable thickness. About 1874 a determined attempt was made by various English companies to establish the industry by scientific quartz-crushing; but none of the mines was a success. At present gold-working is confined to a little sand-washing in the bed of the Beypore river. Mica is mined to a small extent in South Wynaad. Laterite is quarried throughout the District for building purposes, and clay for tiles and pottery is worked in most of the *tāluks*.

Trade and communications.

Few arts of importance are practised in the District. The weaving of calico, which derives its name from Calicut, has practically died out, though coarse cotton cloths for local use are made to a small extent in many villages. The Basel Mission has weaving establishments at Cannanore and Calicut. The chief indigenous industries are the manufacture of yarn from coco-nut husks, the husks being soaked in pits in the backwaters and the fibre beaten out by hand; toddy-drawing from coco-nut, sago, and palmyra palms, the liquor being largely drunk by the lower castes and also distilled or manufactured into coarse sugar; fish-curing, which is mainly in the hands of the Māppillas and Mukkuvans, and is carried on at 31 Government yards; and the pressing of coco-nut and gingelly oils in small mills worked by bullocks.

There are four mission and three native factories for the manufacture of tiles, bricks, pipes, &c., from the special clays found in the District. Their total annual output is valued at over 2 lakhs, of which more than 90 per cent. comes from the mission establishments. The tiles are widely exported. At Calicut, Tellicherry, and Ferokh are steam curing-works belonging to various European firms, at which coffee, cinchona, pepper, and ginger are cured and dried. The value of the produce dealt with at these factories in 1902–3 was estimated at over 44 lakhs, the bulk being coffee from the Wynaad, Coorg, Mysore, and the Nīlgiris. A steam spinning-mill at Calicut, belonging to a native company, was established in 1883, with a nominal capital of 6 lakhs; the annual out-turn of cotton yarn is between 500 and 600 tons.

Owing to its extensive seaboard, the maritime commerce of the District is far more important than its inland trade. The chief ports are Cochin, Calicut, Tellicherry, Cannanore, Beypore, Badagara, and Ponnāni. The total value of the exports and imports in 1903-4 amounted to 512 lakhs and 223 lakhs respectively. The most important exports are coffee, coir (coco-nut) yarn and fibre, and pepper, which together make up over half the total, the other chief articles being tea, cinchona, ginger, cardamoms, copra (dried coco-nut kernels), coco-nut oil, salted fish, wood, and tiles. The chief imports are salt, rice and other grain, piece-goods, cotton twist and fabrics, metal ware, machinery, glass, hardware, dyes, drugs, gunny, and kerosene oil. The bulk of the ginger trade is with the United Kingdom, but pepper is sent largely to Italy, France, and Germany, coffee to France and Australia, coir and coco-nut oil to Germany, France, and the United States, and sandal-wood to France, Germany, and America. Half the coast traffic is with Bombay, but rice is largely imported from Burma and Bengal.

The Ghāt barrier practically confines the inland trade with the eastern Districts to the route through the Pālghāt Gap, and most of it goes by rail. Of the products of the District, coco-nut oil, salted fish, and timber, and of its imports rice, salt, and piece-goods, are the chief articles carried by rail; while jaggery, tobacco, oilseeds, sandal-wood, and hides are the chief imports. By road, cattle are imported from Coimbatore, and rice is exported from the Pālghāt *tāluk*, while from Mysore and Coorg tea and coffee come down to the coast, and grain and cattle are received in exchange for piece-goods, salt, and coco-nut oil.

The larger ports are the chief centres of general commerce, and Pālghāt concentrates the grain and cloth trade with the East Coast. For internal trade there are numerous weekly markets, the most important of which are at Vāniamkulam and CHOWGHĀT. The sea-borne trade is largely in the hands of European firms at Calicut, Cochin, and Tellicherry. Of the native castes, Māppillas are the chief traders; but numerous Pārsī, Arab, and Gujarāti merchants are settled on the coast, and in Pālghāt are found some Labbais and Chettis from the Tamil country.

The south-west line of the Madras Railway (standard gauge) enters the District in the south-east through the Pālghāt Gap and runs along the Ponnāni river to within a few miles of the sea, and then turns north and follows the coast to Cannanore, a total distance of 157 miles. The line is now being extended into South Kanara. From Olavakod a small branch of 2½ miles runs to Pālghāt, and from Shoranūr the new metre-gauge line, opened by the Cochin State in 1902, goes to Ernākulam.

The total length of metalled roads in the District is 606 miles, and of

unmetalled roads 790 miles. Of the metalled roads, 70 miles are under the charge of the Public Works department and the rest are maintained from Local funds. There are avenues of trees along 1,534 miles of road, including by-roads not maintained from public money. The chief lines are the road from Calicut to the Coimbatore frontier through Malappuram and Pālghāt; the four *ghāt* roads from Cannanore, Tellicherry, and Calicut to the Mysore and Nīlgiri frontiers, through the Perambadi, Peria, Tāmarasseri, and Karkūr passes respectively; and the coast road from the South Kanara border to Beypore. The District as a whole is fairly well supplied with roads except in the eastern portions of the four northern *tāluks*, the inner parts of Ernād and Walavanād having been opened out during the last twenty years in connexion with the suppression of Māppilla outbreaks. But the hilly nature of the country necessitates a large number of made roads if communication is to be easy.

Equally important with the roads is the extensive system of inland water communication, which includes the CONOLLY CANAL and the Ponnāni and Valarpattanam rivers, and comprises in all 587 miles of navigable river and backwater, connected by 50 miles of canal. The backwaters are not deep, and the canals are adapted only for small boats, being mostly from 10 to 12 feet broad and very shallow. All the traffic, both of goods and passengers, is carried in primitive native dug-outs.

The sea-borne coasting traffic is mainly carried in native craft called *pattamārs*. There are 39 ports and sub-ports, but these afford little protection from bad weather except for the smaller boats that can enter the mouths of the rivers on which many of them are situated. Coasting steamers of the British India and Asiatic lines call at the chief ports frequently, except during the monsoon, and both lines carry passengers.

Famine.

Famine in the strict sense is unknown in Malabar, since the south-west monsoon never fails. But though the District exports grain, it does not produce enough for its own consumption; and in a time of scarcity elsewhere the general rise in the price of food-stuffs, combined with the increased demand from neighbouring Districts, is liable to cause distress among the poorer classes, especially in the later months of the monsoon when field labour is not required and the new harvest is not available. In the great famine of 1876–7 high prices were combined with a serious failure of the second crop, and gratuitous relief had to be given widely. Similar measures were necessary to a small extent in the monsoon of 1897, when an average of 6,000 persons were fed daily for five months.

For general administrative purposes the District is grouped into six subdivisions. Three of these are usually in charge of Covenanted

Civilians. They are the Pālghāt subdivision, comprising the PĀLGHĀT and PONNĀNI *tāluks*; the Malappuram subdivision, comprising ERNĀD and WALAVANĀD; and the Tellicherry subdivision, consisting of the CHIRAKKAL, KOTTAYAM, and KURUMBRANĀD *tāluks*. The remaining three subdivisions, the WYNAAD, CALICUT, and COCHIN, formed of the *tāluks* of the same names, are each under a Deputy-Collector recruited in India. The outlying ports of ANJENGO and TANGASSERI were also included in the charge of the Deputy-Collector at Cochin till 1906, when they were constituted into a new unit called the District of Anjengo, under the administrative control of the Resident in Travancore and Cochin. The Laccadive Islands fall under the administration of the Calicut divisional officer.

Administration.

For judicial purposes the District is divided into North and South Malabar, with District Courts at Calicut and Tellicherry. Subordinate to the former are three Sub-Judges and twelve District Munsifs; and to the latter, eight Munsifs. The District ranks second in the Presidency in the number of the civil suits filed.

Grave crime is now comparatively rare; but since 1836 the public peace has been periodically disturbed by outbreaks among the Māppillas. Starting with the murder of a Hindu landlord, the looting of a house, or the defiling of a Hindu temple, a small body of these men will run riot over the country, gathering adherents as they go, until finally brought to bay, when they invariably sell their lives as dearly as possible. Experience has proved that Native troops cannot be relied on to deal with these outbreaks; and since 1851 a detachment of British infantry has been stationed at Malappuram, the most convenient centre of the menaced tract, and in the same year a special police force was organized for their suppression. In 1852 the Tangal (high-priest) of TIRŪRANGĀDI, who was suspected of fomenting the disturbances, was banished by Mr. Conolly, the District Magistrate; and in the following year a special Act was passed providing for the treatment of Māppilla fanatics, and for the fining of the villages in which outbreaks should occur. Two years later Mr. Conolly was murdered in his veranda by a body of fanatics who had escaped from the Calicut jail. The Māppilla Act was then for the first time put into force. The most serious outbreaks in recent years have been in 1873 at Kolattūr; in 1885 at Trikkalūr in the Ernād *tāluk*, when twelve fanatics took up a strong position in a Hindu temple from which they were only dislodged by the use of dynamite; in 1894 at Mannārakkāt, when the gang numbered thirty-five and had to be driven from their position by a howitzer; and in 1896, when nearly a hundred men were shot down in the MANJERI temple.

Inquiries show that though agrarian grievances, such as eviction by Hindu landlords, or the refusal of a landowner to grant a site for

a mosque, have been the incentives to many of these outbursts, yet in all the big outbreaks it has been impossible to impute any definite motive to the majority of those who joined the gang. The one constant element is a desperate fanaticism: surrender is unknown; the martyrs are consecrated before they go out and hymned after death. Other noticeable features are that the gang mainly consists of men, or boys, of the lowest class; while with few exceptions the outbreaks have originated within a radius of 15 miles round Pandalūr, a hill in Ernād which was the home of one of the chief Māppilla robbers who disturbed the early years of British supremacy. It lies amid large tracts of uncleared jungle, which have long attracted the unsuccessful Māppillas, who are crowded out of their villages in the west, and who remain for the most part ignorant and destitute and ready on slight provocation to let their smouldering fanaticism kindle.

Special efforts have been made for many years to encourage education and to open up the country in the fanatical zone; but the natural characteristics of the District and its inhabitants make progress in either of these directions necessarily slow. Two regiments of Māppillas recently raised for the Indian Army have been disbanded.

In Malabar, unlike other Districts of Southern India, the Hindu rulers appear to have levied no regular land revenue, but to have contented themselves with customs and tolls and with the occasional levy of special contributions. The Nāyars quickly attained pre-eminence among the various immigrant tribes, and organized the country on a military basis, dividing it into *nāds*, each under its Nāyar chief, who in return for military service granted his vassals fiefs held free of land revenue and carrying with them various administrative and other privileges. The chiefs themselves retained domains for their own support. This organization was probably not disturbed by the Brāhman immigration, though the Brāhmans in Malabar, as elsewhere, attained great influence and received large grants of land for their own support and the maintenance of their temples; and the feudal system seems to have continued both when the *nāds* were combined into a kingdom, and when, on the abdication of the last of the Perumāls, the country was again split up into *nāds*. As the influence of the Rājās who succeeded to the Chera kings declined, the process of disintegration continued, and the fief-holders and Brāhman landowners naturally claimed independent lordship of their lands; and these formed the majority of the *janmis* (landowners) on whose share of the produce the Mysore assessment was eventually levied.

Haidar Alī, on his conquest of the District at the end of the eighteenth century, proceeded to introduce a regular system of land revenue. The various *nāds* were, however, settled at different times and according to no definite system. The principle was to take for

the government revenue a share in money of the *janmi's* rent, or *pāttom*; but the share appears to have varied from 10 per cent. on some 'wet' lands in North Malabar to 100 per cent. on gardens in South Malabar. The rate of commuting into money the rents paid in kind likewise varied in the different *nāds*, while in North Malabar the collection was entrusted to the chiefs of the *nāds* and in South Malabar to Muhammadan officials.

On the cession of the District to the British, the Commissioners appointed to settle the country adopted the Muhammadan revenue assessment. During 1792-3 the Zamorin and other Rājās were allowed to collect the revenue; and in 1794 a system of quinquennial settlement with the Rājās of the *nāds*, based on the Muhammadan accounts prepared in 1782, was introduced. The *zamīndāri* system, however, failed to work; the Government resumed the collection of the revenue, and, owing to the continued complaints of inequality, the Collector appointed in 1801 set himself to revise the whole assessment on regular principles. On 'wet' lands one-third of the net produce, after deducting cultivation expenses, was to go to the cultivator, and the remainder or *pāttom* was to be divided in the proportion of six-tenths to the Government and four-tenths to the *janmi*. On *paramba* lands the gross produce of the trees was to be divided in three equal shares between the cultivator, the *janmi*, and the Government. These principles were approved and a proclamation issued accordingly in 1805; but the settlement was not proceeded with, as it was decided that the existing assessment was adequate and not unpopular. Subsequently a settlement of garden lands on these lines was taken in hand and introduced into various *tāluks* between 1829 and 1840; and in the Kurumbranād *tāluk* this settlement was revised in 1853. Otherwise the Muhammadan settlement of 1776 remained in force till 1900, when the introduction of a new settlement was begun, based on a scientific survey conducted between 1887 and 1895 and following the principles of the *ryotwāri* settlements of the other Districts of the Presidency.

In the new settlement the cultivable land has been divided into 'wet,' 'garden,' and 'dry'; and acreage rates, based on the Government share of the produce claimed in the proclamation of 1805, have been assigned. The new rates were introduced throughout the District by the end of 1903-4. The result will be an enhancement of the land revenue by about 76 per cent., or 13 lakhs, an increase which is to be attributed to the rise in prices during a period of more than a century and to the increase in the area brought under permanent assessment, which amounts to about 50 per cent. above the area shown in the old accounts. Under the old settlement 'wet' rates varied from 4 annas to Rs. 40 per acre, the average being Rs. 3; for gardens and 'dry' land no accurate acreage rates are obtainable. Under the new settle-

ment the 'dry' assessment averages (excluding the Wynaad) R. 0-13-1 per acre (maximum Rs. 2, minimum 4 annas), the 'wet' assessment Rs. 3-8-11 (maximum Rs. 7-8-0, minimum 12 annas), and the 'garden' assessment Rs. 2-15-3 (maximum Rs. 7, minimum R. 1).

The revenue from land and the total revenue in recent years are given below, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	21,39	20,95	23,94	29,97
Total revenue . .	35,88	38,07	46,64	54,55

The landlord's right in the soil is held to vest in the *janmi*. The word *janmam*, literally meaning 'birth,' perhaps carries with it the idea of hereditary ownership. The probable evolution of the *janmi* as landlord has been sketched above. As now interpreted by the Courts, *janmam* right means the proprietary interest of the landlord in the soil, and is freely bought and sold; but the idea of property in land is of comparatively modern growth. The commonest form of tenure under the *janmi* is *kānam*, which word seems to mean literally 'visible property,' and to be applied to the sum lent by a tenant to his landlord, or, originally, to the present brought by a retainer to his chief in return for protection. As now defined by the Courts, a *kānam* implies a usufructuary mortgage entitling the mortgagee to a twelve years' occupancy with a right to his improvements, subject to the payment of an annual rent to the mortgagor. There are various subsidiary forms, differing according to the interest in the land secured to the mortgagor. The ordinary forms of simple lease (*verumpāttom*) and mortgage (*panayam*) are now becoming common.

Outside the five municipalities of CALICUT, COCHIN, CANNANORE, PĀLGHĀT, and TELLICHERRY, local affairs are managed by the District board and the *tāluk* boards of the five subdivisions of Tellicherry, Calicut, Malappuram, Pālghāt, and Wynaad. The expenditure of the boards in 1903-4 was nearly 4½ lakhs, more than half of which was laid out on roads and buildings. The chief sources of income are the land cess and toll and ferry collections, yielding nearly 2·67 and 1·59 lakhs respectively. The District possesses none of the Unions common on the East Coast, few of its villages being built in the close order which demands expenditure on sanitation.

The District Superintendent of police is assisted by three Assistant Superintendents, stationed at Pālghāt, Malappuram, and Tellicherry. There are 105 police stations in the District and 2 outposts. The force consists of 24 inspectors, 3 European head constables, 141 head constables, and 1,125 constables. The special force reorganized in 1885 for the suppression of the Māppilla outbreaks, with its head-quarters at

Malappuram, consists of one inspector, 4 European head constables, 4 head constables, and 81 constables.

The Central jail is at Cannanore, while 21 subsidiary jails have a total accommodation for 527 prisoners.

According to the Census of 1901, Malabar stands fourth among Madras Districts in the literacy of its population, of whom 10 per cent. (17·4 males and 3·0 females) are able to read and write. Education is most advanced in the coast *tāluks*, and most backward in the Wynaad, with its many coolies and hillmen, and in Ernād, the most distinctively Māppilla *tāluk*. The total number of pupils under instruction in 1880–1 was 31,894; in 1890–1, 70,329; in 1900–1, 84,408; and in 1903–4, 91,661, including 19,331 girls. On March 31, 1904, there were (besides 564 private schools) 1,038 public educational institutions of all kinds, including 954 primary, 75 secondary, and 6 training and special schools, and the three Arts colleges at Calicut, Pālghāt, and Tellicherry. Of the public institutions, 24 were managed by the Educational department, 96 by local boards, and 50 by municipalities; while 639 were aided from public funds, and 229 were unaided but conformed to the rules of the department. As usual, the vast majority of those under instruction are only in primary classes, though Malabar stands third among Madras Districts in the proportion of pupils under secondary instruction. Of the male population of school-going age 24 per cent. were under instruction in primary standards in 1903–4, and of the female population of the same age nearly 7 per cent. Among Musalmāns, the corresponding percentages were 35 and 10 respectively. Few of these have advanced beyond the primary stage, and a large proportion receive instruction only in the Korān. The total number of female pupils exceeded that of any other District. There were 22 primary schools for Panchama boys, with 908 pupils. The total expenditure on education in 1903–4 was Rs. 5,18,000, of which Rs. 2,10,000 was derived from fees. Of the total, 53 per cent. was devoted to primary education.

The District possesses 14 hospitals and 9 dispensaries, including a leper hospital at Palliport (Pallipuram), near Cochin, founded by the Dutch in 1728. They contain in all accommodation for 419 in-patients. In 1903 the total number of cases treated was 261,000, of whom 5,100 were in-patients, and 10,000 operations were performed. The total expenditure amounted to Rs. 78,000, the great part of which was met from Local and municipal funds.

Malabar is backward in regard to vaccination. Statistics for 1903–4 show that the number of persons successfully vaccinated was 23 per 1,000, compared with an average for the Presidency of 30. Vaccination is compulsory only in the municipalities.

[For further information regarding the District, see *Malabar*, by

W. Logan (1887), and *Malabar Law and Custom*, by H. Wigram and L. Moore (Madras, 1900).]

Mālaisohmāt.—Petty State in the Khāsi Hills, Eastern Bengal and Assam. The population in 1901 was 491, and the gross revenue in 1903–4 was Rs. 200. The principal products are rice, millet, bay leaves, areca-nuts, and oranges. There are deposits of lime in the State, but they are not worked.

Malakand.—A pass which crosses the range north of Peshāwar District, North-West Frontier Province, and leads from Sam Rānizai into the Swāt valley, situated in 34° 34′ N. and 71° 57′ E. The pass is traversed by an ancient Buddhist road. Early in the sixteenth century the Yūsufzai Pathāns effected their entrance into Swāt by the Malakand, and in 1587 Zain Khān, a general of the emperor Akbar, built a fort here. In 1895 the pass was taken by the Chitrāl relief force, and has since been occupied as a military post, near which is also the head-quarters of the Dīr, Swāt, and Chitrāl Political Agency. On July 26, 1897, the post was suddenly attacked by a large gathering of Swātis under a fanatical leader, the Mullā Mastān or 'Mad Mullā.' Tribesmen from Utmān Khel and Upper Swāt poured in, raising the numbers to 12,000 men. Fighting continued until August 1, when the tribes were repulsed. Chakdarra, which also was besieged by the tribesmen, was relieved the next day.

Mālambi (or Mālimbi).—A fine conical hill in the north-east of Coorg, Southern India, situated in 12° 40′ N. and 75° 58′ E., 4,488 feet high, conspicuous in all that part of the country.

Malanggarh (*Bāwa Malang*).—Hill fortress in the Kalyān *tāluka* of Thāna District, Bombay, situated in 19° 7′ N. and 73° 13′ E., 10 miles south of Kalyān town. It is known also as the Cathedral Rock. Like most of the Thāna hill forts, Malanggarh rises in a succession of bare stony slopes, broken by walls of rocks and belts of level woodland. It is most easily reached from Kalyān across a rough roadless tract of about 8 miles, ending in a climb of a perpendicular height of about 700 feet. Connected with the base of the hill is a forest-covered table-land, upon which is the tomb of the Bāwa Malang. At the time of Captain Dickinson's survey in 1818, there were a few dwellings for the garrison here, of which the ruined sites alone remain. From this table-land the ascent to the lower fort is very steep, and upwards of 300 feet high. The latter part is by an almost perpendicular rock-hewn staircase, at the top of which is a strong gateway covered by two outstanding towers, enabling even the smallest garrison to make the place impregnable. From the lower to the upper fort there is a perpendicular ascent of 200 feet by means of a narrow flight of rock-hewn steps, on the face of a precipice so steep as to make the ascent at all times most difficult and dangerous. The upper

fort, a space of 200 yards long by about 70 broad, is nothing more than the top, as it were, of the third hill. It has no fortifications, but there are traces of an enclosure and of the walls of an old building. The water-supply is from a range of five cisterns, and a copper pipe is used to carry water to the lower fort. A yearly fair, held here in February, is attended by both Hindus and Muhammadans.

Malappuram Subdivision.—Subdivision of Malabar District, Madras, consisting of the ERNĀD and WALAVANĀD *tāluks*.

Malappuram Town.—Town in the Ernād *tāluk* of Malabar District, Madras, situated in 11° 4′ N. and 76° 4′ E., 31 miles south-east of Calicut, with which it is connected by a good road. Population (1901), 9,216. It is notable as the centre for many years of the Māppilla fanatical outbreaks. A detachment of British troops has been stationed here since 1873, and a special police force since 1885. The chief buildings are the churches (Protestant and Roman Catholic), the divisional officer and magistrate's court, the barracks, and the office of the Assistant Superintendent of police. A weekly market is held here.

Malavalli Tāluk.—Eastern *tāluk* of Mysore District, Mysore State, lying between 12° 13′ and 12° 33′ N. and 76° 54′ and 77° 20′ E., with an area of 391 square miles. The population in 1901 was 101,779, compared with 85,910 in 1891. The *tāluk* contains one town, MALAVALLI (population, 7,270), the head-quarters; and 231 villages. The land revenue demand in 1903-4 was Rs. 97,000. The Cauvery forms part of the southern boundary, receiving from the north the Shimsha, into which all the waters of the *tāluk* flow. About the middle of the southern boundary are situated the Falls of the Cauvery, on either side of the island of Sivasamudram. The *tāluk* generally is an undulating plain, except in the south-east, where there are a State forest and several high hills, including KABBĀLDURGA (3,507 feet). In the south-west is Kundūrbetta (3,129 feet). The soil is rocky and shallow in the south-east and north-west, generally red mixed with sand elsewhere, and improves in the south-west, where there is some black soil. Mulberry is the chief garden crop. Some land is irrigated by channels. The Cauvery Power-works at Sivasamudram have recently attracted population.

Malavalli Town.—Head-quarters of the *tāluk* of the same name in Mysore District, Mysore, situated in 12° 23′ N. and 77° 4′ E., 18 miles south of Maddūr railway station. Population (1901), 7,270. In the seventeenth century it was an important place, with a large fort, now ruinous. Haidar Alī gave Malavalli in *jāgīr* to his son Tipū, who planted a large fruit garden near the tank, now occupied by paddy-fields. To the west of the town took place the battle in which Tipū Sultān was defeated by the British in 1799. After the

action he had the place destroyed, to prevent its being of any use to the British. The establishment of the Cauvery Power-works at Sivasamudram has revived the importance of Malavalli. A small Faith Mission has a station here. The municipality dates from 1873. The receipts and expenditure during the ten years ending 1901 averaged Rs. 1,700. In 1903–4 they were Rs. 2,100 and Rs. 1,600.

Malavalli Village.—Village in the Shikārpur *tāluk* of Shimoga District, Mysore, situated in 14° 29′ N. and 75° 19′ E., 20 miles northwest of Shikārpur town. Population (1901), 500. It is of interest on account of the Sātakarni inscription found on a pillar, probably of the second century, the oldest in Mysore next to the edicts of Asoka. From this it appears that the village was then called Mattapatti.

Malayagiri.—The highest peak in Orissa, Bengal, situated in the Pāl Laharā Tributary State, in 21° 22′ N. and 85° 16′ E. The hill, which is 3,895 feet above the sea, is isolated and commands a magnificent view over the surrounding country. Water is obtainable near the summit, on which there is space for building sites.

Malcolmpeth. — Sanitarium in Sātāra District, Bombay. *See* MAHĀBALESHWAR.

Mālda District (*Māldaha*).—District in the Rājshāhi Division of Eastern Bengal and Assam, lying between 24° 30′ and 25° 32′ N. and 87° 46′ and 88° 31′ E., with an area of 1,899 square miles. It is bounded on the north-western corner by Purnea District and on the north-eastern by Dinājpur; Rājshāhi lies to the south-east, while the Ganges forms a continuous western and south-western boundary separating it from the Santāl Parganas and Murshidābād.

Physical aspects.

The Mahānandā flows through the District from north to south, dividing it into two nearly equal parts which present very different characteristics. West of the river the surface is composed of the newer alluvium and is comparatively low, a great deal of it having been subject to fluvial action in very recent times; the Ganges once washed the walls of Gaur, but it now flows 16 miles farther west. The eastern half of the District lies in the older alluvium of the Bārind, and has a stiff clay soil and high undulating surface, broken by the deep valleys of the Tāngan and Pūrnabhabā and their tributary streams; towards the south in the Nawābganj *thāna*, as in other portions of the District bordering on the Ganges, the surface declines into the newer alluvium. The Ganges skirts the District, forming a natural boundary from the north-west corner to the extreme south. Its flood-waters, as deflected from the hills of Rājmahāl, are perpetually cutting away the Mālda bank, which is everywhere low and composed of loose sand. Among many former channels and deserted backwaters the little winding stream of the Bhāgīrathi (also called the Chhotī Bhāgīrathi) deserves

mention, as being the historical river-bed which defended the city of Gaur. This is almost dry in the winter, but becomes navigable for country boats during the rainy season. It ultimately joins the Pāgla or Pāgli, a larger branch of the Ganges, which runs in a meandering course to the south-east, and encloses, before it regains the Ganges, a large island about 16 miles long. The Pāgla is navigable during the rains, but in the dry season it retains no current and becomes fordable at many points. The MAHĀNANDĀ enters Mālda from Purnea and joins the Ganges at the south-eastern corner of the District. Its tributaries are, on the right bank, the Kālindrī, and on the left bank, the Tāngan and Pūrnabhabā, which bring down the drainage of Dinājpur. The Mahānandā flows in a deep and well-defined channel between high banks, and varies in breadth from about 400 to 800 yards. At certain seasons of the year, the melting of the snows in the mountains, combined with the local rainfall, causes the river to rise as much as 30 feet, and an embankment has been constructed just above the civil station of English Bāzār to protect it from inundation. There are no lakes; but old channels of the Ganges are numerous, and between Gaur and the Mahānandā there are extensive undrained swamps.

The District is covered with alluvium. The Bārind belongs to an older alluvial formation, which is usually composed of massive argillaceous beds of a rather pale reddish-brown hue, often weathering yellowish, disseminated throughout which occur *kankar* and pisolitic ferruginous concretions. The low-lying country to the west of the Mahānandā and in the south is of more recent formation, consisting of sandy clay and sand along the course of the rivers, and of fine silt consolidating into clay in the flatter parts of the river plain.

Where the ground is not occupied by the usual crops of North Bengal, it is covered with an abundant natural vegetation, except in the sandy beds of the greater rivers. Old river-beds, however, ponds and marshes, and streams with a sluggish current have a copious vegetation of *Vallisneria* and other plants. Land subject to inundation has usually a covering of *Tamarix* and reedy grasses, and in some parts where the ground is more or less marshy *Rosa involucrata* is plentiful. Few trees occur on these inundated lands; the most plentiful and the largest is *Barringtonia acutangula*. Near villages thickets or shrubberies of semi-spontaneous growth and more or less useful trees of a rapid growth and weedy character are common. No Government forests exist, but portions of the Bārind are covered with jungle known locally as *kātāl*. This consists chiefly of thorny bush jungle, mixed with an abundance of *pīpal* (*Ficus religiosa*), banyan (*Ficus indica*), red cotton-tree (*Bombax malabaricum*), *pākar*-trees, and *nipal* bamboos.

Mālda was once celebrated for its large game and especially for tigers. Owing, however, to the clearing of the *kātāl* jungle and to the extension of cultivation, tigers are now rarely met with, though leopards still abound and frequently make their appearance even in the outskirts of the civil station. Wild hog and spotted deer are also common, and wild buffaloes are occasionally seen, though they have become very rare. The swamps and ancient tanks of the District are infested with big crocodiles; and the larger swamps are frequented by game-birds of almost every species found in Bengal.

The climate is not characterized by extremes of heat or rainfall. Mean temperature increases from 63° in January to 86° in May, the average for the year being 78°. The highest mean maximum is 97° in April and the lowest 50° in January. The annual rainfall averages 57 inches, of which 4·7 inches fall in May, 9·7 in June, 13·4 in July, 11·2 in August and September, and 3·4 in October.

Except in August, 1885, when an exceptional rising of the Ganges caused great destruction of crops over about 300 square miles in the south and south-west of the District, no serious flood has occurred in recent years. In the earthquake of 1897 all the masonry houses in English Bāzār and Old Mālda were damaged, the cost of repairs to public buildings being estimated at Rs. 11,000, while private buildings suffered to the extent of 2½ lakhs. In the *diāra* lands cracks opened some half a mile in length, and in the higher lands subsidences occurred in a few places.

History.

The area included within Mālda District contains two of the great capitals of the early Muhammadan rulers of Bengal; and at the present day the sites of GAUR and PANDUA exhibit some of the most interesting remains in the Province. The country originally formed part of the kingdom of Pundra or Paundra-vardhana, the country of the Pods, and subsequently of the Bārendra division of Bengal under Ballāl Sen. To this king is attributed the building of the city of Gaur, which under his son Lakshman Sen received the name of Lakshmanavatī or Lakhnautī. Muhammad-i-Bakhtyār Khiljī, who invaded Bengal at the end of the twelfth century, expelled Lakshman Sen and moved the capital from Nadiā to Gaur. About 1350 Shams-ud-dīn Ilyās transferred the capital to Pandua, where it remained for about 70 years till Jalāl-ud-dīn restored it to Gaur; but with this exception Gaur continued, in spite of many vicissitudes, to be the capital of the viceroys and kings of Bengal till 1564, when Sulaimān Kararānī removed the seat of government to TANDA, a few miles to the south-west of Gaur. Munim Khān, after defeating Daud Khān in 1575, occupied Gaur; but a pestilence broke out in which thousands died every day, and the survivors fled, never to return to their deserted homes. After this Tanda apparently con-

tinued to be the capital, but a few years later Rājmahāl was made the seat of government. The very site of Tanda is now unknown, though it seems to have been an important place for about a hundred years after the depopulation of Gaur; in its neighbourhood was fought the decisive battle in which prince Shujā was defeated by the generals of Aurangzeb in 1660. The East India Company established a factory at Mālda as early as 1676, by the side of a Dutch factory already in existence there. In 1683, when it was visited by William Hedges (who spent a day in exploring the ruins of Gaur), the number of factors was three[1]. In 1770 English Bāzār was fixed upon for a Commercial Residency, and continued to be a place of importance until the discontinuance of the Company's private trade; the fortified structure which was originally used as the Residency is now occupied by the courts and public offices. As an administrative unit the District only came into existence in 1813, when, in order to secure a closer magisterial supervision, various police circles were detached from the Districts of Rājshāhi, Dinājpur, and Purnea and placed in charge of a Joint-Magistrate and Deputy-Collector stationed at English Bāzār. A separate treasury was first opened in 1832, but it was not till 1859 that a Magistrate-Collector was appointed to the District. Anomalies remained in the revenue, criminal, and civil jurisdiction which were not adjusted till 1875, and since that time there have been only a few unimportant transfers of jurisdiction. In 1905 the District was transferred from the Bhāgalpur Division of Bengal to the Rājshāhi Division of Eastern Bengal and Assam.

Population.

Mālda is considered less unhealthy than the adjoining Districts of Purnea, Dinājpur, and Rājshāhi; but it is very malarious, especially in the undrained swamps between Gaur and the Mahānandā, and in the jungly tract to the east. Malarial fever generally breaks out on the cessation of the rains; and in six years out of the ten ending 1900 it was one of the six Districts in Bengal from which the highest fever mortality was reported; in 1899 it headed the list with a recorded mortality from fever of 41·7 per 1,000. Cholera is often rife, and a specially bad outbreak occurred in 1899 in English Bāzār.

The population has risen from 677,328 in 1872 to 711,487 in 1881, to 814,919 in 1891, and to 884,030 in 1901. It is thus growing rapidly in spite of the unhealthy conditions prevailing, and the density in 1901 was 466 persons per square mile. The increase during the decade ending with that year amounted to 8½ per cent., being greatest in the Gājol and Old Mālda *thānas* in the Bārind, where Santāls are settling in large numbers; this tract is still, however, the least densely populated part of the District. In the Kāliāchak and Sibganj *thānas* in the

[1] *Hedges's Diary*, vol. i, pp. 87–9.

south-west new *chars* have attracted a number of Muhammadan cultivators from English Bāzār and Nawābganj, and from Murshidābād on the other side of the river. The immigrants from the Santāl Parganas now number 43,000; and there is also a considerable immigration from Bhāgalpur and other Bihār Districts, and from the United Provinces. The population is contained in 3,555 villages and three towns: ENGLISH BĀZĀR, the head-quarters, MĀLDA, and NAWĀBGANJ. Bengali is spoken by 74 per cent. of the population and Bihārī by 21 per cent.; the Mahānandā river forms a linguistic boundary, the northern dialect of Bengali being prevalent in the east of the District, while in the west the Māgadhī dialect of Bihārī is the vernacular. The Mahānandā is likewise a religious boundary; and the two main religions are nearly equally divided, Hindus (440,398) constituting 50 per cent. of the population and Muhammadans (424,969) 48 per cent.

Of the Muhammadans, no less than 399,000 are Shaikhs; they are probably for the most part descended from the Rājbansis or Koch, who form the prevailing race of North Bengal east of the Mahānandā and are the most numerous of the Hindu castes in the District (64,000). Santāls (including 18,000 returned as Animists) number 52,000, Chains (who are semi-Hinduized aborigines) 44,000, and Chāsatis 27,000; while among the less numerous castes, Gangai (Ganesh) with 13,000 and Pundāri (Puro) with 8,000 are distinctive of this part of the country. Agriculture supports 57 per cent. of the population, industries 19 per cent., and the professions one per cent.

The only Christian mission at work in the District belongs to the London Baptist Missionary Society; it has met with but little success, the number of native Christians in 1901 being 173.

Agriculture.

The low-lying recent alluvium in the west and south is enriched by annual deposits of silt, and its fertile soil is well adapted for the cultivation of rice, mulberry, indigo, and mangoes. The stiff clay soil of the Bārind, which is best suited to the growth of winter rice, produces also large crops of pulses and oilseeds. The north and north-west corner of the District lying between the Mahānandā, the Kālindrī, and the Ganges is intersected by nullahs and covered with jungle; the soil here is extremely poor, but the short grass affords pasturage to a considerable number of cattle.

In 1903–4 the net cropped area was estimated at 1,120 square miles and the cultivable waste at 455 square miles; about 7 per cent. of the net cultivated area is twice cropped. Rice constitutes the staple food-crop and is grown on 611 square miles, of which 312 square miles are estimated to be under the winter crop, while on most of the remainder early rice is grown. Wheat covers 119 square miles, barley 34 square miles, maize 25 square miles, pulses (including gram) and other food-grains 153 square miles, oilseeds (chiefly mustard) 105 square miles,

and jute 38 square miles. Jute is grown for the most part in the north-west of the District, and wheat, barley, and gram in the extreme west. Mangoes, for the excellence and variety of which this District is deservedly famous, are grown chiefly in the English Bāzār *thāna*. But the profits from the sale of this fruit, as well as the improved facilities for transport, have encouraged landowners to cultivate it in all the *thānas* to the west of the Mahānandā. Every plot of land suitable for the growth of mango grafts is planted with them, and tracts of land formerly growing ordinary *rabi* or winter crops have in recent years been converted into mango orchards. The mulberry is grown in the central and south-western portion of the District; and its cultivation gives a curious aspect to this part of the country, as the land has to be artificially raised to the height of 8 or 10 feet, to prevent the plants from being destroyed by the annual floods. Indigo is still grown on the Ganges *diāras* to the west, covering about 1,000 acres, but the area under this crop has been largely reduced.

Cultivation has rapidly extended around the ruins of Gaur and also in the Bārind, where the greater portion of the cultivable area has been cleared of jungles in recent years; and there has also been an extension of cultivation in the swampy tract to the east of Gaur. Manure is used only on mulberry lands, and artificial irrigation is unnecessary except for the spring rice crop. The agricultural classes are on the whole prosperous, and there has hitherto been little demand for advances under the Agriculturists' and Land Improvement Loans Acts.

Good cart-bullocks are imported from the Districts to the west, but the local cattle are poor. There are extensive tracts of waste land in the Bārind and elsewhere, but little nourishing pasture land. During the rains the inhabitants of the *diāras* graze their cattle in the higher tracts. An industrial exhibition, at which domestic animals and poultry are shown, was instituted at English Bāzār in 1903.

Trade and communications.

The staple industry of the District is silk. Its production may be classed in three branches: the rearing of the cocoons, the spinning of the raw silk, and the weaving of silk piece-goods. Within the last twenty-five years the cultivation of mulberry and the production of cocoons has nearly doubled; and the annual output of cocoons is estimated at 100,000 maunds, worth from 25 to 30 lakhs, of which about 60,000 maunds are exported. The annual export of silk thread is estimated at 1,650 to 1,700 maunds, and its value at 10 or 11 lakhs. The industry is said to date back to the Hindu kingdom of Gaur; and the cloth known as Māldahi was for a long time a speciality of external commerce, but its manufacture is now very limited, and a few pieces only are occasionally woven to meet the demands of a Bombay firm. The export of ordinary silk piece-goods has also decreased, and it is

estimated that it does not now exceed Rs. 60,000. The East India Company had a factory at Mālda as early as 1676, and in 1876 there were seven European concerns for the manufacture of raw silk; but there are now only two factories under European management, at Bāragharia and Bholā Hāt, and the number of native factories has also declined. In 1903-4 the European factories turned out 23,000 lb. of raw silk, valued at 2·1 lakhs, which was exported chiefly to England and France; they also purchase and export large quantities of cocoons. Some cotton cloth is woven; but the only other important industry is the manufacture of brass-ware and bell-metal at English Bāzār, Nawābganj, and Kālīgrām. The manufacture of indigo is languishing, and the out-turn in 1903-4 was only 4 tons.

The chief exports are silk cocoons, silk thread, paddy and rice to Calcutta, Dacca, Assam, and Bihār, mangoes (chiefly to Calcutta and Eastern Bengal) and jute (to Calcutta, Murshidābād, Nāgpur, Benares, Meerut, and Lahore), while wheat, barley, gram, oilseeds, and chillies are also exported. The imports comprise cotton piece-goods, coco-nuts, betel-nuts, paper, *ghī*, *gur* (molasses), sugar, copper, brass plates, kerosene oil, shoes, umbrellas, and spices of all kinds. Coco-nuts and betel-nuts are brought from Lower Bengal, *ghī* and *gur* from Bihār, and the other articles mainly from Calcutta. A large part of the traffic is carried in country boats down the Mahānandā; while some of the trade is carried by boat or river steamer to Rājmahāl on the East Indian Railway, or to Dāmukdia Ghāt on the Eastern Bengal State Railway. The chief mart for the purchase and sale of silk cocoons and silk thread is AMĀNIGANJ HĀT, the sales on a market day occasionally amounting to a lakh. The most important centre of trade is NAWĀBGANJ on the Mahānandā, while Mālda and ROHANPUR have also an important rice trade.

No railway at present enters the District, but there is a project to construct a branch line from Katihār to Sārā Ghāt or to Godāgāri (to connect with an extension of the Rānāghāt-Murshidābād branch of the Eastern Bengal State Railway recently opened to traffic). Excluding 424 miles of village tracks, there are only 277 miles of roads, of which 9 miles are metalled. The most important are those from English Bāzār to Nawābganj and to Rājmahāl, and the Dinājpur road branching off from the latter; the road from Godāgāri to Dinājpur passes through the south-eastern corner of the District. There are 32 ferries under the District board. The paucity of roads is due to the excellence of water communications.

The Mahānandā is navigable throughout the year by boats of 150 maunds up to Alal, the Tāngan for boats of 100 maunds up to Lālgola, and the Pūrnabhabā for boats of the same burden as far as Dinājpur. Steamers belonging to the India General Steam Navi-

gation Company ply six days a week between English Bāzār and Sultānganj; a service between Rājmahāl and Dāmukdia Ghāt stops at various stations on the Mālda side of the Ganges, and during the rains a ferry steamer runs from Rājmahāl to English Bāzār and back three days a week.

Some scarcity in 1885 and 1897 necessitated Government relief on a small scale, but no actual famine has occurred in recent years.

Administration.

The Magistrate-Collector is assisted at ENGLISH BĀZĀR, the head-quarters, by a staff of three Deputy-Collectors and one Sub-deputy-Collector. There are no subdivisions in the District.

The civil courts subordinate to the District Judge are those of three Munsifs, of whom two sit at English Bāzār and one at Nawābganj. The District and Sessions Judge, who is also Judge of Rājshāhi, has his head-quarters at Rāmpur Boāliā in that District. Crime is on the whole light, and the commonest offences are of a petty character or are due to disputes about land.

The District, as already stated, is a recent creation from the Districts of Purnea and Dinājpur, and its land revenue history cannot be stated separately. In 1903–4 there were 655 estates, with a revenue demand of 4·36 lakhs. The whole of the District is permanently settled, with the exception of 40 estates with a total demand of Rs. 35,000, which are temporarily settled or managed direct by Government. Little is peculiar in the land tenures of the District, except the existence of several large revenue-free estates granted as endowments to Muhammadan *fakīrs*. Under the *hālhāsili* tenure the annual rent varies both according to the amount of land under cultivation and the nature of the crop raised. This tenure is most common in the backward parts of the District, and one of its incidents is that it allows a certain proportion of the village lands always to lie fallow. Rent rates vary largely for different kinds of land, being usually much lower in the case of old holdings. Land yielding two or three crops brings in about Rs. 1–14 per acre in the case of old holdings, and from Rs. 3 to Rs. 4–8 per acre in the case of land newly brought under cultivation. Low lands for winter rice yield from about Rs. 1–8 to Rs. 2–4 per acre; spring rice lands from Rs. 3–12 to Rs. 6 and Rs. 12, and occasionally even Rs. 18 and Rs. 24 per acre; mulberry lands from Rs. 3 to Rs. 3–12 for unraised land and from Rs. 4–8 to Rs. 6 for well-raised plots; mango orchards from Rs. 4–8 to Rs. 6; and garden lands from Rs. 6 to Rs. 15 per acre. The average holding of a tenant, as estimated from certain typical estates in various parts of the District, is $1\frac{1}{2}$ acres.

The following table shows the collections of land revenue and total revenue (principal heads only), in thousands of rupees :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	4,15	4,29	4,40	4,40
Total revenue . .	6,69	7,69	8,80	9,08

Outside the municipalities of ENGLISH BĀZĀR, OLD MĀLDA, and NAWĀBGANJ, local affairs are managed by the District board. In 1903-4 its income was Rs. 87,000, of which Rs. 32,000 was derived from rates; and the expenditure was Rs. 96,000, including Rs. 53,000 spent on public works and Rs. 25,000 on education.

English Bāzār is protected by an embankment 2½ miles in length from the inundations of the Mahānandā and Kālindrī rivers.

The District contains ten *thānas* or police stations and three outposts. In 1903 the force subordinate to the District Superintendent consisted of 2 inspectors, 26 sub-inspectors, 20 head constables, and 255 constables. There was, in addition, a rural police force of 178 *daffadārs* and 1,784 *chaukīdārs*. The District jail at English Bāzār has accommodation for 110 prisoners.

Education is backward; in 1901 only 3·7 per cent. of the population (7·4 males and 0·2 females) could read and write. An advance has, however, been made in recent years, the number of pupils under instruction having increased from 8,608 in 1883-4 to 11,752 in 1892-3, and to 12,009 in 1900-1. In 1903-4, 14,782 boys and 1,085 girls were at school, being respectively 22·5 and 1·6 per cent. of those of school-going age. The number of educational institutions, public and private, in that year was 487, including 27 secondary and 444 primary schools. The expenditure on education was Rs. 76,000, of which Rs. 9,000 was met from Provincial funds, Rs. 23,000 from District funds, Rs. 1,100 from municipal funds, and Rs. 35,000 from fees.

In 1903 the District contained nine dispensaries, of which one had accommodation for 28 in-patients. The cases of 56,000 outpatients and 500 in-patients were treated, and 2,419 operations were performed. The expenditure was Rs. 15,000, of which Rs. 800 was met from Government contributions, Rs. 5,000 from local and Rs. 2,000 from municipal funds, and Rs. 7,000 from subscriptions.

Vaccination is compulsory only in municipal areas. In 1903-4 the number of persons successfully vaccinated was 30,000, representing 35 per 1,000 of the population.

[Martin (Buchanan Hamilton), *Eastern India* (1838), vol. ii, pp. 291-582, and vol. iii, pp. 1-350; Sir W. W. Hunter, *Statistical Account of Bengal*, vol. vii (1876); N. G. Mukerjī, *Monograph on the Silk Fabrics of Bengal* (Calcutta, 1903).]

Mālda Town (or Old Mālda).—Town in Mālda District, Eastern

Bengal and Assam, situated in 25° 2′ N. and 88° 8′ E., at the confluence of the Kālindrī with the Mahānandā. Population (1901), 3,743. The town is admirably situated for river traffic, and probably rose to prosperity as the port of PANDUA. During the eighteenth century it was the seat of thriving cotton and silk manufactures, and both the French and Dutch had factories here. In 1810 Mālda was already beginning to lose its prosperity; and, though some trade is still carried on in grain, it shows signs of poverty and decay. Mālda was constituted a municipality in 1869. The income during the decade ending 1901–2 averaged Rs. 3,450, and the expenditure Rs. 3,300. In 1903–4 the income was Rs. 3,400, mainly from a tax on persons (or property tax); and the expenditure was Rs. 3,000. The town contains a mosque built in 1566. At Nimāsarai, near the confluence of the Mahānandā and Kālindrī, stands an old brick tower with stones shaped like elephant tusks projecting from its walls. It resembles the Hiran Minār at Fatehpur Sīkri, and was probably intended for a hunting tower.

Mālegaon Tāluka. — *Tāluka* of Nāsik District, Bombay, lying between 20° 20′ and 20° 53′ N. and 74° 18° and 74° 49′ E., with an area of 777 square miles. It contains one town, MĀLEGAON (population, 19,054), the head-quarters; and 146 villages. The population in 1901 was 96,707, compared with 86,243 in 1891. The density, 124 persons per square mile, is below the District average. The demand for land revenue in 1903–4 was 2·5 lakhs, and for cesses Rs. 17,000. Mālegaon is hilly in the north; but in the south, except for a few small hills, it is flat and treeless. Three ranges run through the *tāluka*, and are crossed by numerous cart-tracks into Khāndesh and the adjoining *tāluka*, the most southerly range being traversed by a section of the Bombay-Agra trunk road. The *tāluka* is healthy and well watered. The chief rivers are the Girnā with its tributaries in the centre, and the Bori in the north. The Girnā passes close to Mālegaon town. The annual rainfall averages 21 inches.

Mālegaon Town.—Head-quarters of the *tāluka* of the same name in Nāsik District, Bombay, situated in 20° 33′ N. and 74° 32′ E., on the trunk road from Bombay to Agra, 154 miles north-east of Bombay and 24 miles north-east of Manmād on the Great Indian Peninsula Railway. Population (1901), 19,054. Mālegaon was formerly a cantonment, but the troops have now been finally withdrawn. It has a municipality, established in 1863. The income during the decade ending 1901 averaged Rs. 24,000. In 1903–4 the income was Rs. 32,000. The town contains two cotton-ginning factories, about 3,000 hand-looms for cotton weaving, which employ 7,000 persons, a Subordinate Judge's court, two English schools, and a dispensary. Mālegaon was occupied by Arab troops during the Pindāri War, and

its capture by Colonel M'Dowell in May, 1818, was attended by a loss of more than 200 of the British force. When the Arabs were dispersed after the capture of the fort, many of them were escorted to Surat and there shipped to their native country: others retired to Cutch, Kāthiāwār, and the Deccan. The fort is said to have been built in 1740 by Nārushankar, a daring Arab leader; other authorities refer its construction to an engineer sent from Delhi.

Mālegaon Village.—A *jāgīr* village in the north-east of Bīdar District, Hyderābād State, situated in 18° 41′ N. and 76° 58′ E. Population (1901), 270. It was once celebrated for its annual horse fair, where upwards of 4,000 horses and ponies were disposed of for prices ranging up to Rs. 700. Piece-goods, cloth of all kinds, hardware, &c., were among other things exposed for sale. Owing to plague and famine the fair has not been held since 1897.

Māler Kotla State.—Native State under the political control of the Commissioner, Jullundur Division, Punjab, lying between 30° 24′ and 30° 41′ N. and 75° 42′ and 75° 59′ E., with an area of 167 square miles. Population (1901), 77,506, giving a density of 478 persons per square mile. It is bounded by the District of Ludhiāna on the north and by Patiāla territory elsewhere, except for a few miles on the western border, where it marches with some Nābha villages. The country is a level plain, unbroken by a single hill or stream, and varied only by sand-drifts which occur in all directions and in some parts assume the shape of regular ridges. The Bhatinda branch of the Sirhind Canal passes through the northern part of the State, but the Nawāb refuses to allow irrigation from it. The Nawābs of Māler Kotla are of Afghān descent, and originally held positions of trust in the Sirhind province under the Mughal emperors. As the empire sank into decay during the eighteenth century, the local chiefs gradually became independent. In 1732 the chief of Māler Kotla, Jamāl Khān, joined the commander of the imperial troops stationed in the Jullundur Doāb in an unsuccessful attack on Rājā Ala Singh, the Sikh chief of Patiāla; and again in 1761, Jamāl Khān afforded valuable aid against his Sikh neighbour to the lieutenant whom Ahmad Shāh, the Durrāni conqueror, had left in charge of Sirhind. The consequence of this was a long-continued feud with the adjacent Sikh States, especially with Patiāla. After the death of Jamāl Khān, who was killed in battle, dissensions ensued among his sons, Bhikan Khān ultimately becoming Nawāb. Soon after Ahmad Shāh had left India for the last time, Rājā Amar Singh of Patiāla determined to take revenge on Bhikan Khān. He attacked him, and seized some of his villages, till at last the Māler Kotla chief found that he was unable to resist so powerful an enemy, and a treaty was negotiated which secured peace for many years between these neighbouring States. During this peace the forces of

Māler Kotla on several occasions assisted the Patiāla Rājās when in difficulties; and in 1787 Rājā Sāhib Singh of Patiāla returned these kindnesses by aiding Māler Kotla against the powerful chief of Bhadaur, who had seized some of the Nawāb's villages. In 1794 a religious war was proclaimed against the Muhammadans of Māler Kotla by the Bedi Sāhib Singh, the lineal descendant of Bāba Nānak, the first and most revered of the Sikh Gurūs. This man, who was half-fanatic and half-impostor, inflamed the Sikhs against the cow-killers of Māler Kotla, and a great many Sikh Sardārs joined him. The Nawāb and his troops were defeated in a pitched battle, and compelled to flee to the capital, where they were closely besieged by the fanatical Bedi. Fortunately for the Nawāb, his ally of Patiāla again sent troops to help him; and ultimately the Bedi was induced to withdraw across the Sutlej by the offer of a sum of money from the Patiāla Rājā.

After the victory of Laswāri, gained by the British over Sindhia in 1803, and the subjugation and flight of Holkar in 1805, when the Nawāb of Māler Kotla joined the British army with all his followers, the British Government succeeded to the power of the Marāthās in the districts between the Sutlej and the Jumna; and in 1809 its protection was formally extended to Māler Kotla as to the other Cis-Sutlej States, against the formidable encroachments of Ranjīt Singh of Lahore. In the campaigns of 1806, 1807, and 1808, Ranjīt Singh had made considerable conquests beyond the Sutlej; and in 1808 he occupied Farīdkot, marched on Māler Kotla, and demanded a ransom of Rs. 1,55,000 from the Nawāb, in spite of the protests of Mr. (afterwards Lord) Metcalfe, who was then an envoy in Ranjīt's camp. This led to the resolute interference of the British, who advanced troops under Colonel Ochterlony, and at the same time (December, 1808) addressed an ultimatum to Ranjīt Singh, declaring the Cis-Sutlej States to be under British protection. Finally, Ranjīt Singh submitted; Colonel Ochterlony formally reinstated the Nawāb of Māler Kotla in February, 1809; and in April of that year the final treaty between the British Government and Lahore, which affirmed the dependence of the Cis-Sutlej States on the former, was signed by Mr. Metcalfe and Ranjīt Singh.

The present Nawāb, Muhammad Ibrāhīm Alī Khān, born in 1857, succeeded in 1877; but he has been insane for some years, and the State is now administered by Sāhibzāda Ahmad Alī Khān, the heir-apparent, as regent. The State contains the town of MĀLER KOTLA, the capital, and 115 villages. The chief products are cotton, sugar, opium, aniseed, tobacco, garlic, and grain; and the estimated gross revenue is Rs. 5,47,000. The Nawāb receives compensation from the Government of India, amounting to Rs. 2,500 per annum, on account of loss of revenue caused by the abolition of customs duties. The State

receives an allotment of 14 to 16 chests of Mālwā opium annually, each chest containing 1·25 cwt., at the reduced duty of Rs. 280 per chest. The duty so paid is refunded to the State, with a view to securing the co-operation of the State officials in the suppression of smuggling. The military force consists of 50 cavalry and 439 infantry. This includes the Imperial Service contingent of one company (177 men) of Sappers and Miners. The State possesses 2 serviceable guns. The Nawāb of Māler Kotla receives a salute of 11, including 2 personal, guns. The State contains an Anglo-vernacular high school and three primary schools.

Māler Kotla Town.—Chief town of Māler Kotla State, Punjab, situated in 30° 32′ N. and 75° 59′ E., 30 miles south of Ludhiāna town. Population (1901), 21,122. The town is divided into two parts, Māler and Kotla, which have lately been united by the construction of the new Moti Bāzār. The former was founded by Sadr-ud-dīn, the founder of the Māler Kotla family in 1466, and the latter by Bāyazīd Khān in 1656. The principal buildings are the houses of the ruling chief, a large Dīwān Khāna (courthouse) situated in Kotla, and the mausoleum of Sadr-ud-dīn in Māler. The cantonments lie outside the town. The chief exports are grain and Kotla paper and survey instruments, manufactured in the town itself; and the chief imports are cotton cloth, salt, and lime. A large grain market has lately been constructed. The town has a small factory for the manufacture of survey instruments, employing about 20 hands. A cotton-press, opened in 1904, gives employment to about 300 persons. Māler Kotla has since 1905 been administered as a municipality. It contains a high school, a hospital, and a military dispensary.

Malgaon.—Town in the Mirāj (Senior) State, Bombay, situated in 16° 53′ N. and 74° 47′ E. Population (1901), 5,774. It is administered as a municipality, with an income in 1903–4 of Rs. 700. A temple of Daudnāth, which is supposed to have been dedicated by the hero of the Rāmāyana, stands on a hill about 3 miles from the town; and just outside is the shrine of a Muhammadan saint named Bawafan, at which a yearly fair, attended by both Hindus and Muhammadans, is held. Malgaon is famous for its betel-nut gardens, the produce of which is exported to Kolhāpur, Poona, Bombay, and other places. It is connected with Mirāj, 6 miles away, by a good road, which serves as a feeder to the Southern Mahratta Railway. The town contains a branch post office and a school.

Mālia.—State in the Kāthiāwār Political Agency, Bombay, lying between 23° 1′ and 23° 10′ N. and 70° 46′ and 71° 2′ E., with an area of 103 square miles. The population in 1901 was 9,075, residing in 17 villages. The revenue in 1903–4 was Rs. 1,56,000, and the cultivated area 68 square miles. The State ranks as a fourth-class

State in Kāthiāwār. The Thākur or chief was raised from the fifth to the fourth class to give him a greater hold over the Miānas, a predatory tribe which infests the neighbourhood. He is a representative of the elder branch of the Cutch family, and executed the usual engagements in 1807.

Māliahs, The ('highlands').—An elevated tract in the western half of Ganjām District, Madras, comprising the country above and just adjoining the EASTERN GHĀTS, and lying between 18° 48′ and 20° 26′ N. and 83° 30′ and 84° 36′ E., with an area of 3,551 square miles. They are also called the Agencies, because they are administered by the Collector under special powers vested in him in his capacity as Agent to the Governor. They are peopled by primitive forest tribes. The ordinary courts have no jurisdiction in them, the Agent and his Assistants administering both civil and criminal justice, and much of the ordinary law of the land is not in force.

The tract consists of a series of wild undulating plateaux, divided by lower valleys. In the north, almost the whole of the Udayagiri *tāluk* may be said to have an average elevation of 2,300 feet. Passing west to Balligudā and Pokiribondo, the general level sinks to 1,700 and 1,500 feet, and farther south of Balligudā to 1,000 feet at Kotgar. On the west of this last line is a higher plateau round Belghar, with an average elevation of 2,500 feet, and in the southern centre of the Balligudā *tāluk* is another of between 2,500 and 3,000 feet. South of this the general altitude is about 1,700 feet, again sinking in the neighbourhood of Nolaghāt in Rāmagiri *tāluk* to 1,000 feet; while still farther south the elevation once more rises, and the hills run up into the three highest peaks in the District, all of which are above 4,500 feet.

The scenery throughout is usually beautiful, and in places remains of the old heavy forest are still standing; but the continual clearing of the hill-sides for the purposes of the shifting cultivation practised by the tribes prevents the trees from attaining any size. This shifting cultivation is effected by felling and burning a piece of forest, cultivating the ground in a careless manner for two or three years, and then moving to a fresh patch. The best growth now, which is on the slopes leading up into the hill country, consists chiefly of *sāl* (*Shorea robusta*). The chief passes into the Māliahs are the Kalingia *ghāt* from Russellkondā, the Pippalaponka *ghāt* from Gazilbādi, the Katingia *ghāt* from Surada, the Taptapāni or 'hot spring' *ghāt* (so called from a hot sulphur spring it contains) from Digupūdi, the Puipāni *ghāt* from Surangi, and the Munisinghi *ghāt* from Parlākimedi.

The Agency tracts are for the most part held on a kind of feudal tenure, the proprietors being in theory bound to render certain services when called upon. They comprise fourteen different Māliahs known

by separate names, of which four, the Goomsur, Surada, Chinnakimedi, and Parlākimedi Māliahs, are Government land.

In 1901 the population numbered 321,114, living in 1,926 villages. Of the total, 139,000 were Khonds, 83,000 Savaras, 44,000 Pānos, and 46,000 Oriyās. The Pānos, who are often good-looking, have well-marked gipsy proclivities. Their occupations are trade, weaving, and theft. They live on the ignorance and superstition of the Khonds, as brokers and pedlars, sycophants and cheats. Where there are no Oriyās the Pānos possess much influence, and are always consulted by the Khonds in important questions, such as boundary disputes. The Khonds live chiefly in the north and the Savaras in the south. Both are primitive people and their religious beliefs are animistic, though those who have settled below the Ghāts have to some extent adopted the ordinary Hindu gods and rites. Their languages, which are called after them Khond and Savara, are unwritten.

The various dialects of the Khonds differ greatly in different localities, and the ways and character of the tribe vary almost as much as their dialects. Those inhabiting the Kutiā country are the most warlike and troublesome. Generally speaking, the Khonds are 'a bold and fitfully laborious mountain peasantry, of simple but not undignified manners; upright in their conduct; sincere in their superstitions; proud of their position as landholders, and tenacious of their rights.' Khond women wear nothing above the waist except necklaces. The men have one dirty cloth, the ends of which hang down behind like a tail. Their head-dress is characteristic. They wear their hair very long, and it is drawn forward and rolled up until it resembles a short horn. Round this it is the delight of the Khond to wrap a piece of coloured cloth or some feathers, and he also keeps his comb, pipe, &c., inside it. The men go about armed with a *tangi*, a sort of battle-axe, and use bows and arrows when after game. They are over-fond of sago-palm liquor; and in March, when the *mahuā* flower falls, they distil strong drink from it, and many of the male population remain hopelessly intoxicated for days together. In places the Sondis, a caste of traders and toddy-sellers, have obtained much of the Khonds' land by pandering to their taste for liquor.

The Savaras are of poorer physique, and more docile and timid than the Khonds. They use bows and arrows like the Khonds, and dress their hair in the same sort of horn on the top of their heads. They are not, however, nearly so addicted to strong drink. They are skilful cultivators, and in some places grow rice by terracing the hill-sides with much labour and ingenuity.

The dominant race above the Ghāts are the Oriyās. The hill villages are arranged into groups called *muttahs*, over each of which is an hereditary headman, known as the *patro* or Bissoyi, who has a

number of *paiks* or guards under him. With one exception, all these *patros* are Oriyās. Government holds them responsible for the good order of their *muttahs*, and the Khonds almost everywhere obey them willingly.

Government derives very little revenue from the Māliahs, except from the Chokkapād *khandam* in the Goomsur Māliahs, which is managed as a *ryotwāri* area. All the *zamīndārs* and chiefs who hold Māliahs under special *sanads* (grants) pay *nazarānas* (fees) to Government, and receive fixed amounts from the *patros* of the several *muttahs*, who in their turn get fixed *māmūls* (customary payments) from the several villages in their *muttahs*.

The Māliahs had an evil repute in days gone by for frequent *meriah*, or human, sacrifices to the earth-god to secure good crops. The Khonds were the great offenders in this matter. The *meriah* victim was formally purchased and destined for sacrifice, and on the day appointed was stupefied with intoxicants and then, after certain ceremonies, was publicly done to death, the body being cut up into small pieces which the people buried in their fields before sundown. The method of sacrifice varied. At Balligudā the victim was tied to a horizontal bar, roughly shaped to resemble an elephant's head, which turned on a vertical post. The bar was whirled round and round, and as it revolved the people hacked to shreds the still living victim. One of these diabolical contrivances is now in the Madras Museum.

Special officers were appointed to suppress this custom (and female infanticide, which was also common); but it persisted as late as 1857, and even in 1880 an attempted sacrifice in Vizagapatam District was very nearly successful. Some hundreds of persons of both sexes who had been bought for sacrifice were rescued by the special officers, and three or four of them are still alive and in receipt of a monthly dole from Government. The Khonds now substitute a buffalo for the human victim.

Malīhābād Tahsīl.—Northern *tahsīl* of Lucknow District, United Provinces, comprising the *parganas* of Malīhābād and Mahonā, and lying between 26° 52′ and 27° 9′ N. and 80° 34′ and 81° 4′ E., with an area of 334 square miles. Population increased from 175,542 in 1891 to 184,230 in 1901. There are 379 villages and only one town, MALĪHĀBĀD (population, 7,554), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 3,30,000, and for cesses Rs. 51,000. The density of population, 552 persons per square mile, is the lowest in the District. Across the centre of the *tahsīl* flows the Gumtī, whose banks are fringed by ravines and bordered by a sandy tract. In the north-east the soil is clay, and tanks and *jhīls* abound. The south-western portion is intersected by several small streams and is very fertile. In 1903–4 the area under cultivation was 213 square miles, of

which 73 were irrigated. Wells supply two-thirds of the irrigated area, and tanks most of the remainder.

Malīhābād Town.—Head-quarters of the *tahsīl* of the same name in Lucknow District, United Provinces, situated in 26° 55′ N. and 80° 43′ E., a mile from a station on the Oudh and Rohilkhand Railway and on the road from Lucknow city to Hardoī. Population (1901), 7,554. According to tradition, the town was founded by Maliā, a Pāsī; but nothing is known of its history till the reign of Akbar, when it was inhabited by Pathāns. It contains two bazars built in the eighteenth century, one of which owes its origin to Nawāb Asaf-ud-daula. Besides the usual offices, a dispensary and a branch of the American Methodist Mission are situated here. Malīhābād is administered under Act XX of 1856, with an income of about Rs. 2,300. It has little trade, but a kind of tinfoil is manufactured in small quantities, and the place is noted for its mangoes and orchards of *ber* (*Zizyphus Jujuba*). A school for boys contains 175 pupils and one for girls 29.

Maliwun (Siamese, *Malewan*).—Southernmost township of Mergui District, Lower Burma, lying on the mainland between 9° 58′ and 10° 55′ N. and 96° 27′ and 98° 56′ E., and including islands which extend to 9° 38′ N. and 97° 44′ E. Its area is 989 square miles. The eastern boundary runs for most of the way along the Pakchan river, on the other side of which is the Siamese State of Renong. The head-quarters were moved in 1891 from Maliwun, the principal tin-mining centre in the District, situated on a tributary of the Pakchan, to the healthier and more accessible Victoria Point at the southern extremity of the mainland. Except for a few Government officials and their families, there are no Burmans in the township, the population of which was 7,719 in 1891 and 5,265 in 1901, composed of Siamese in the rice plain on the right bank of the Pakchan, Chinese in the mining camps, Malays along the coast, and Salons about the islands. The township contains 41 villages and hamlets. Until the time of Alaungpayā the Pakchan was an important trade route. The country seems to have been completely depopulated by that monarch's devastations, and was left a good deal to itself till, fifty years ago, immigration had led to such a series of dacoities and piracies that measures had to be concerted between the British and Siamese Governments for the maintenance of order. In 1859 the population was only 733. The next year the tract was leased to a Chinaman, who took over the administration for ten years; but internal brawls in 1861 led to the establishment of a frontier police under a European inspector, and later to the appointment of a resident magistrate. The village of Victoria Point, called by the Siamese Kawsong, by the Malays Pulodua (both meaning 'two islands'), and by the Burmans Kawthaung, a corruption of the

Siamese name, contains about 80 houses. The Government buildings are pleasantly situated on rolling hills, from which the islands of the Archipelago and the Pakchan river, with the mountain ranges of Renong beyond it, are visible at the same time. Except for the rice plain on the Upper Pakchan and a few small patches elsewhere, the whole township is under dense forest. The area cultivated in 1903–4 was 7 square miles, and the land revenue Rs. 4,600. The total revenue raised in the same year amounted to Rs. 30,000.

Māliyās.—Hill tracts in the north of the Madras Presidency. *See* MĀLIAHS.

Malkangiri.—Agency *tahsīl* in Vizagapatam District, Madras, situated north of the Ghāts on the western border of the District, and bounded east and west by the Machkund and Sābari rivers. Area, 2,396 square miles; population (1901), 35,856, compared with 28,277 in 1891; number of villages, 566. The *tahsīl* is the largest and most sparsely peopled in the Presidency, the density of population being only 15 persons per square mile. Malkangiri is a wild forest-clad area, watered by the Sābari and Sileru, and sloping down to the Godāvari border. Good teak and *sāl* (*Shorea robusta*) forests exist, and they are being 'reserved' by the Rājā of Jeypore, to whom the *tahsīl* belongs. The head-quarters are at Malkangiri village. Among the inhabitants, besides hill tribes, are found a considerable number of Telugus who have immigrated from the neighbouring Agency tract in Godāvari.

Malkāpur Tāluk.—*Tāluk* of Buldāna District, Berār, lying between 20° 33′ and 21° 2′ N. and 76° 2′ and 76° 36′ E., with an area of 792 square miles. The population fell from 177,877 in 1891 to 173,234 in 1901, the density in the latter year being 219 persons per square mile. The *tāluk* contains 288 villages and two towns, MALKĀPUR (population, 13,112), the head-quarters, and NĀNDŪRA (6,669). The demand for land revenue in 1903–4 was Rs. 5,24,000, and for cesses Rs. 41,000. Malkāpur lies in the fertile valley of the Pūrna, which bounds it on the north, while on the south it is bounded by the hills of the Bālāghāt.

Malkāpur Town.—Head-quarters of the *tāluk* of the same name in Buldāna District, Berār, situated in 20° 53′ N. and 76° 15′ E., on the Nalgangā, a tributary of the Pūrna, at an elevation of 900 feet, with a station on the Nāgpur branch of the Great Indian Peninsula Railway, 308 miles from Bombay and 213 from Nāgpur. Population (1901), 13,112. Two *bands* or dams cross the Nalgangā here, one of which is said to have been constructed about two hundred years ago to facilitate communication with the *peth* or suburb, and the other about fifty years later to fill the town ditch with water and thus protect it from surprise by marauders. A dilapidated rampart of dressed stone with five gates and twenty-eight bastions surrounds the town, which is divided into

four principal quarters. One of the gates bears on it an inscription, to the effect that it was erected in 1729 during the rule of Muhammad Maāli Khān. Malkāpur is mentioned in the *Ain-i-Akbarī* as the headquarters of a *pargana* in the *sarkār* of Narnāla. The town is said to have been founded about four hundred and fifty years ago by a prince of the Fārūki house of Khāndesh, and to have been named by him after the princess (*malika*) his daughter; but the story is improbable, for we have no record of any journey in this direction by Mīrān Ghanī Adil Khān, the Fārūki prince of the period. In 1761 the town was rich enough to pay Rs. 60,000 to the army of Raghunāth Rao Peshwā, for exemption from plunder. The Nizāms used to keep a force of about 20,000 men in this frontier district of their dominions. Daulat Rao Sindhia and Raghujī Bhonsla were encamped near Malkāpur when the British envoy, Colonel Collins, after presenting General Wellesley's ultimatum, quitted Sindhia's camp on August 3, 1803. Malkāpur was the scene of several petty battles between *zamīndārs*, rival *tālukdārs*, Rājputs, and Musalmāns during the period between the beginning of the nineteenth century and the Assignment of Berār. A subordinate civil court is established at Malkāpur, which also contains a *tahsīl*, a courthouse, schools, a dispensary, and some ginning factories. A mosque near the *kāzī's* house is said to be older than the town.

Mallāni.—The largest district in the State of Jodhpur, Rājputāna, situated in the west of the State, with an area of 5,750 square miles. In 1901 it contained one town, BARMER, and 464 villages, with a total population of 172,330, of whom about 75 per cent. were Hindus, 12 per cent. Musalmāns, 6 per cent. Animists, and 5 per cent. Jains. The population in 1891 was 221,184; the decrease is due to the famine of 1899–1900. The most numerous castes are the Jāts, 40,000; Bhīls, 11,700; Rājputs, 11,400 (of whom 1,400 are Musalmāns); Mahājans, 11,000; Brāhmans, 9,400; and Balais or Chamārs, 8,000. The salient feature of the country is the sandhills, which in some places rise to an altitude of 300 to 400 feet. The northern and western portions form part of the desert stretching into Sind and Jaisalmer. Water is usually brackish, and in some spots deadly to man or beast. Wells and pools yield potable water only after the rains and become noxious by March, so that in the summer there is a great scarcity of water and the use of a wholesome well has to be paid for. The sandy wastes provide excellent grazing for the herds of camels, cattle, sheep, and goats kept by a large migratory population, including some of the hardy Baloch tribes. The only river in Mallāni is the Lūni, which enters the district at Jasol and pursues a tortuous course of about 80 miles till it passes into the Sānchor district of the State, and thence to the Rann of Cutch. There are about 40 *jhīls* or marshes

in the vicinity of Barmer, Takhtābād, and Setrao, some of which cover an area of 400 or 500 acres. In favourable seasons, wheat is grown in their beds, and when they are dry they yield a good supply of water at a depth varying from 8 to 24 feet. Fuller's earth is found in considerable quantities; and the principal manufactures are cloth of a mixture of cotton and wool, woollen blankets, small rugs of camel hair, millstones, and horse and camel saddlery. The horses of Mallāni are famous for their hardiness and ease of pace, and though light-boned will carry heavy weights; the best are bred in the villages of Nagar and Gūrha. The administration of the district is in the hands of a Superintendent, under whom are the *hākim* or chief local officer; the Munsif, who settles civil suits and disputes about land; and the *risāldār*, who is the head of the local police. There are four vernacular schools of long standing, and a couple of small hospitals.

Historically the tract is very interesting, and justly claims to be the cradle of the Rāthor race in the west. Here, in the beginning of the thirteenth century, Rao Siāhjī and his son Asthānjī, having conquered Kher (now a ruined village near Jasol) and the adjoining tract called Mewo, from the Gohel Rājputs, planted the standard of the Rāthors amid the sandhills of the Lūni. The eighth in succession from Siāhjī was Rao Salkha, in whose time, about the middle of the fourteenth century, a separation took place. Salkha had three sons: namely, Mallināth, Viramdeo, and Jetmal. A portion of the tribe followed the fortunes of Viramdeo, whose son Chonda captured MANDOR from the Parihār Rājputs in 1381, and whose descendants ruled first there and subsequently at Jodhpur. The rest of the tribe remained on the banks of the Lūni with Salkha's eldest son, Mallināth, after whom the district of Mallāni is named. Succession following the rule of partition, the country became minutely subdivided among the descendants of Mallināth, and the dissensions and blood-feuds thereby created offered the chiefs of Jodhpur opportunities to interfere and establish an overlordship which continues to the present day. The district was for centuries one continual scene of anarchy and confusion; and the Jodhpur Darbār, when called upon to remedy this, acknowledged its inability. In these circumstances, in 1836, it became necessary for the British Government to occupy Mallāni and restore order by reducing the principal Thākurs. The district was subsequently held in trust by Government, the rights of the Jodhpur chief being recognized; and as the Darbār gave increasing evidence of sound administration, its jurisdiction has been gradually restored—namely, military in 1854, civil in 1891, and criminal in 1898. The whole of Mallāni consists of *jāgīr* estates, the principal being Jasol, Barmer, and Sindri, held by descendants of Mallināth, and Nagar and Gūrha, held by descendants of Jetmal. They pay a small tribute called *faujbal* to the Jodhpur

Darbār, which thus derives an income of about Rs. 18,000, including a few miscellaneous items.

Mallānwān.—Town in the Bilgrām *tahsīl* of Hardoī District, United Provinces, situated in 27° 3′ N. and 80° 9′ E., on the old route from Delhi to Benares, north of the Ganges. Population (1901), 11,158. The Shaikhs who inhabit the place claim to have come with Saiyid Sālār, and it was of some importance under native rule. In 1773 a force of the Company's troops was cantoned between Mallānwān and Bilgrām, but was removed soon after to Cawnpore. At annexation in 1856 Mallānwān was selected as the head-quarters of a District; but after the Mutiny the offices were removed to Hardoī. The town is administered under Act XX of 1856, with an income of about Rs. 2,700. There is a considerable manufacture of vessels of brass and bell-metal. The school has 216 pupils, and the American Methodist Mission has a branch in the town.

Malot (1).—Ancient fortress, now in ruins, in the District and *tahsīl* of Hoshiārpur, Punjab, situated in 31° 50′ N. and 76° E. It was founded by a Pathān general in the reign of Bahlol Lodī (1451–89), and became under Sher Shāh the capital of the tracts which now form Hoshiārpur and Kāngra Districts. In 1526 it was surrendered to Bābar by Daulat Khān, ruler of the Punjab, and in later times it fell into the hands of the hill Rājputs.

Malot (2).—Fort and temple on a precipitous spur projecting from the southern edge of the Salt Range, Jhelum District, Punjab, situated in 32° 42′ N. and 72° 50′ E., about 9 miles west of Katās. The fort is said to have been built five or six centuries ago by Rājā Mal, a Janjūa chief, whose descendants still hold the village. The temple, with its gateway, stands on the extreme edge of the cliff. They are in the earlier Kashmīr style, built of coarse red sandstone, much injured by the action of the weather. The temple is 18 feet square inside, with remarkable fluted pilasters and capitals, on each of which is a kneeling figure.

[*Archaeological Survey Reports*, vol. v, pp. 85–90.]

Malpe.—Village and port in the Udipi *tāluk* of South Kanara District, Madras, situated in 13° 28′ N. and 74° 46′ E. It is the best natural port in the District, the roadstead being sheltered by the island of Daryā Bahādurgarh. The St. Mary Isles, on which Vasco da Gama landed in 1498 and set up a cross, lie about 3 miles to the north-west. The Basel Mission has a tile factory here.

Mālpur.—Petty State in MAHĪ KĀNTHA, Bombay.

Mālpura.—Head-quarters of the *nizāmat* and *tahsīl* of the same name in the State of Jaipur, Rājputāna, situated in 26° 18′ N. and 75° 23′ E., about 55 miles south-west of Jaipur city, and connected with the Rājputāna-Mālwā Railway at Naraina by an unmetalled road

about 38 miles long. Population (1901), 6,502. The town has a more than local reputation for the *namda* or felt manufactured there. Blankets, *gūgis*, or capes with hoods worn in the rainy season, Hindu prayer-rugs, saddle-cloths, gun-covers, and floorcloths are the chief articles made from this material; and they are largely exported. A vernacular middle school is attended by about 120 boys, and the hospital has accommodation for 4 in-patients. There are numerous excellent irrigation works in this district; among them the Tordi Sāgar, a few miles to the south of Mālpura town. Completed in 1887 at a cost of 5 lakhs, this tank, when full, covers an area of over 6 square miles, and can hold water sufficient to irrigate about 27 square miles. The total expenditure up to 1904 was about 6·3 lakhs, while the total revenue realized up to the same date was 6·4 lakhs.

Mālsiras Tāluka.—*Tāluka* of Sholāpur District, Bombay, lying between 17° 35′ and 18° 2′ N. and 74° 37′ and 75° 13′ E., with an area of 574 square miles. It contains 69 villages, the head-quarters being at MĀLSIRAS (population, 2,263). The population in 1901 was 52,533, compared with 74,039 in 1891. The *tāluka* is very thinly populated, with a density of only 92 persons per square mile, the average for the District being 159. The demand for land revenue in 1903–4 was 1·1 lakhs, and for cesses Rs. 8,000. Mālsiras is generally flat and bare of trees, except in the west, where there is a chain of hills. Water is not plentiful. The chief rivers are the Nīra and Bhīma. The *tāluka* chiefly consists of good black soil. The climate is dry and hot, and the rainfall scanty and uncertain.

Mālsiras Village.—Head-quarters of the *tāluka* of the same name in Sholāpur District, Bombay, situated in 17° 53′ N. and 74° 58′ E. Population (1901), 2,263. A weekly market is held on Tuesday. The village contains an old Hemādpanti temple of Someshwar, and a shrine of Hanumān, on the high road from Poona to Pandharpur, which is much frequented by pilgrims. There is one school.

Mālūr Tāluka.—South-western *tāluk* of Kolār District, Mysore, lying between 12° 48′ and 13° 11′ N. and 77° 51′ and 78° 8′ E., with an area of 267 square miles. The population in 1901 was 61,908, compared with 54,180 in 1891. The *tāluk* contains one town, Mālūr (population, 3,632), the head-quarters; and 374 villages. The land revenue demand in 1903–4 was Rs. 1,21,000. Mālūr occupies the watershed separating the Pālār and Ponnaiyār rivers. The high-lying tracts are bare or covered with low jungle. The north-east is the most fertile part, watered by streams flowing west to the Ponnaiyār. There are many large tanks. Good potatoes are grown. The soil is red and comparatively deep, mixed with sand in the south-west; in the east it is grey and shallow, being similar in the south, where rock crops up.

Mālūr Village.—Village in the Channapatna *tāluk* of Bangalore District, Mysore, situated in 13° 0′ N. and 77° 56′ E., on the Kanva. Population (1901), 2,515. Most of the residents are Brāhmans of the Srīvaishnava sect, who give it the name Rājendrasimha-nagara. There are several ruined temples, but a large one of Aprameyaswāmi is kept in good order. The place was of importance under the Cholas. Vijnāneswara is said to have here composed the law book *Mitāksharā*, his celebrated commentary on Yājnavalkya, its date being about 1100.

Malvalli.—*Tāluk* and town in Mysore District, Mysore. *See* MALAVALLI.

Malvalli.—Village in Shimoga District, Mysore. *See* MALAVALLI.

Mālvan Tāluka.—Southern *tāluka* of Ratnāgiri District, Bombay, lying between 16° 1′ and 16° 19′ N. and 73° 27′ and 73° 41′ E., with an area of 238 square miles. It contains one town, MĀLVAN (population, 19,626), the head-quarters; and 58 villages, including MASŪRA (8,855) and PENDUR (5,364). The population in 1901 was 107,944, compared with 92,437 in 1891. The increase is due to the presence of large numbers of Bombay mill-hands, whose homes are in Mālvan, and whom the closing of mills in 1901 had forced to return to their villages. The density, 454 persons per square mile, is much above the District average. The demand for land revenue in 1903-4 was Rs. 89,000, and for cesses Rs. 6,000. The *tāluka* forms a considerable stretch of the Ratnāgiri sea-board, intersected by the Kolamb and Kālāvali creeks. The interior is a series of rugged hills and rich valleys. Rice and sugar-cane are grown along the Kārli and Kālāvali creeks. The headland of Rājkot at Mālvan offers a secure harbour to small steamers and country craft which anchor in Mālvan Bay, but the bay is dangerous to vessels without a pilot. The climate is on the whole healthy. The annual rainfall averages 88 inches. The supply of water for drinking and other purposes is abundant. The Kārli and Kālāvali creeks are navigable by small craft for 20 miles. The chief ports on the sea-board are Devgarh, Achra, and Mālvan, forming the Mālvan customs division.

Mālvan Town (*Maha-lavana*, the 'Salt Marsh').—Head-quarters of the *tāluka* of the same name in Ratnāgiri District, Bombay, situated in 16° 3′ N. and 73° 28′ E., 70 miles south of Ratnāgiri town. Population (1901), 19,626. In a bay almost entirely blocked by rocky reefs, there were formerly three islands. On the larger of the two outer islands was the famous fort of Sindhudrug, and on the smaller the ruined fort of Padmagarh. Sindhudrug or the 'ocean fort,' built by Sivajī, was very extensive, little less than 2 miles round the ramparts. To the Marāthās it is Sivajī's cenotaph, and his image is worshipped in the chief shrine. On what was once the inner island, now part of the mainland, is situated, almost hidden in palms, the old town of Mālvan.

The English had a factory here in 1702. The modern town of Mālvan has spread far beyond the limits of the former island. Within the boundaries of the town, on rising ground surrounded on three sides by the sea, is Rājkot fort. Mālvan was formerly a stronghold of the Marāthā pirates, known as 'the Malwans'; but in 1812 it was, under the Treaty of Kārvīr, ceded to the British by the Rājā of Kolhāpur. Towards the close of 1812 Colonel Lionel Smith completely extirpated the pirates. Iron ore of good quality is found in the neighbourhood. The value of trade at the port of Mālvan in 1903-4 was: imports 12 lakhs, exports $6\frac{1}{2}$ lakhs. The town contains a Subordinate Judge's Court and eleven schools, of which two are for girls.

Mālwā Agency.—A collection of Native States in charge of a Political Agent under the orders of the Agent to the Governor-General in Central India, lying between 22° 20′ and 25° 9′ N. and 74° 32′ and 76° 28′ E. It has an area of 8,919 square miles, and is bounded on the north and west by Rājputāna; on the south by the Bhopāwar and Indore Residency Political Charges; and on the east by Bhopāl.

The total population in 1901 was 1,054,753, of whom Hindus numbered 839,364, or 81 per cent.; Musalmāns, 107,290, or 10 per cent.; Animists, 55,013, or 5 per cent.; Jains, 36,615, or 3 per cent.; and Christians, 1,488. The density of population is 118 persons per square mile. The Agency contains 15 towns, of which the chief are UJJAIN (population, 39,892), RATLĀM (36,321), JAORĀ (23,854), NĪMACH including cantonment (21,588), MANDASOR (20,936), and DEWĀS (15,403); and 3,847 villages.

After the conclusion of the Treaty of Mandasor with Holkar in 1818, the local corps raised in accordance with its provisions was stationed at MEHIDPUR, and the commandant received military and civil powers. His charge comprised the whole of the Agency as it was up to March 20, 1907, before the inclusion of the Indore Agency and the lately transferred Indore districts, but not the NĪMACH district, which was at that time included in Rājputāna. After the Mutiny, Colonel Keatinge, who was placed in political control of the country, moved his head-quarters from time to time between MANDASOR, AGAR, and MEHIDPUR. In 1860, when the Central India Horse was regularly constituted and stationed at Agar, the dual military and civil control of the charge, then called the Western Mālwā Agency, was entrusted to the commandant. The civil work becoming too heavy for this officer to deal with adequately, the Mālwā Agency was created under a separate Political officer in 1895, the head-quarters being placed at Nīmach. In 1903 the Indore State districts comprised in the charge were handed over to the Resident at Indore. A further change was made in March, 1907, when the Indore Agency was abolished, and the

States and estates directly under the Agent to the Governor-General were transferred to the Political Agent in Mālwā. In 1854, on the first appointment of an Agent to the Governor-General, the twin States of Dewās and several estates, of which the Thakurāt of Bāglī was the most important, remained directly under the Agent to the Governor-General, who delegated the powers of control to his First Assistant. The increase of secretariat work at head-quarters necessitated the abolition of this arrangement, and the charge was transferred. There are now five States with their head-quarters in the Agency: the Hindu twin States of DEWĀS, the Muhammadan treaty State of JAORĀ, and the mediatized Hindu States of RATLĀM, SĪTĀMAU, and SAILĀNĀ. In addition to the above, the Political Agent also has charge of a considerable portion of GWALIOR territory, of the PIRĀWA *pargana* of TONK, and of numerous holdings under British guarantee, of which PIPLODĀ and BĀGLI are the most important (see table on next page). Among these minor holdings Panth-Piplodā is peculiar, being held directly from the British Government, without the intervention of any Native State. The holders possess no land, but receive a cash assignment levied on the income derived from ten villages situated within the territory of various Thākurs, five of these villages being in Piplodā. The grantees have no proprietary rights whatever, receiving their cash assignment through the Political Agent, who holds the jurisdiction over these villages.

The Ajmer-Khandwā branch of the Rājputāna-Mālwā Railway, the Ujjain-Ratlām-Godhra branch of the Bombay, Baroda, and Central India Railway, and the Ujjain-Bhopāl Railway serve the Agency. The Agra-Bombay, Ujjain-Agar, Mhow-Nīmach, Ujjain-Sehore, Agar-Sārangpur, Dewās-Ujjain, and Dewās-Bhopāl metalled roads also traverse it.

The Political Agent exercises the usual general control over all the States, and is a Court of Sessions for the cantonment of Nīmach. He is also the District Magistrate and Judge and Court of Sessions for the Rājputāna-Mālwā, Ujjain-Nāgda, and Ratlām-Godhra sections of the Bombay, Baroda, and Central India Railway, from Fatehābād to Kesarpura stations and from Ratlām to the east of the Mahī.

The Agency comprises the States, portions of States, and estates shown in the table on the next page.

Mālwā (1).—A high-level region, with an area of 7,630 square miles, forming the greater part of the western section of the Central India Agency, which, as one of the most fertile and habitable parts of the Peninsula, has figured prominently in the ancient and mediaeval periods of Indian history.

The term Mālwā has at different periods been applied to somewhat varying tracts, though Mālwā proper has always constituted its main area. Mālwā proper, as understood by Hindus, consists solely of the plateau

Name.	Title.	Caste, clan, &c.	Area in square miles.	Population, 1901.	Total revenue.
					Rs.
1. Dewās, Senior Branch, portion	H. H. Rājā	Ponwār Marāthā	385	51,708	2,85,000
2. Dewās, Junior Branch, portion	H. H. Rājā	Ponwār Marāthā	378	44,410	2,95,000
3. Jaorā	H.H.Nawāb	Pathān Musalmān	568	84,202	8,50,000
4. Ratlām	H. H. Rājā	Rāthor Rājput	902	83,773	5,00,000
5. Sītāmau	H. H. Rājā	Rāthor Rājput	350	23,863	1,26,000
6. Sailānā	H. H. Rājā	Rāthor Rājput	450	25,731	1,50,000
7. Piplodā	Thākur	Doria Rājput	60	11,441	95,000
8. Ajraoda	Thākur	Ponwār Marāthā	*	*	336
9. Bāgli	Thākur	Rāthor Rājput	108	14,049	1,00,000
10. Bardia (Barra)	Rao	Chauhān Rājput	7	568	15,000
11. Barkhera Deo Dungrī	Thākur	Rāthor Rājput	4	225	2,800
12. Barkhera Panth	Thākur	Rāthor Rājput	5	375	4,800
13. Bhātkherī	Rāwat	Chandrāwat Rājput	35	1,878	15,000
14. Bhojākherī	Rao	Sondhiā	6	250	2,000
15. Bichraud I	Thākur	Chauhān Rājput	*	*	1,200
16. Bichraud II	Thākur	Chauhān Rājput	*	*	1,500
17. Bilaud	Thākur	Muhammadan Saiyid	16	204	6,500
18. Borkhera	Thākur	Rāthor Rājput	8	870	13,900
19. Dābrī	Thākur	Chauhān Rājput	*	*	180
20. Datāna	Thākur	Jādon Rājput	*	*	186
21. Dhulātia	Thākur	Khīchī Rājput	*	*	1,221
22. Jawāsiā	Rao	Goyal Sesodia Rājput	4	418	10,000
23. Kālukhera	Rao	Khīchī Rājput	6	932	7,000
24. { Karaudia and	Thākur	Jādon Rājput	10	1,469	8,000
{ Kheri Rājāpur		Chauhān Rājput	6	630	4,180
25. Kherwāsa	Thākur	Rāthor Rājput	5	716	11,000
26. Khojankhera	Thākur	Solanki Rājput	5	549	6,000
27. Lālgarh	Dīwān	Chauhān Rājput	14	1,838	18,000
28. Narwar	Rao	Jhāla Rājput	16	1,405	19,000
29. Naugaon	Thākur	Jādon Rājput	*	*	114
30. Panth-Piplodā	Pandit	Karāde Dakshanī Brāhman	19	3,544	15,000
31. Pathārī	Thākur	Chauhān Rājput	15	1,436	16,000
32. Pīplia	Rāwat	Khīchī Rājput	8	600	4,000
33. Sadākherī (Sheogarh)	Thākur	Rāthor Rājput	2	445	42,000
34. Sanauda	Thākur	Rāthor Rājput	9	143	2,200
35. Sarwan	Thākur	Rāthor Rājput	71	4,056	42,000
36. Shujaota	Thākur	Solanki Rājput	7	319	10,000
37. Sidrī	Thākur	Nimā Mahājan Baniā	1	184	3,000
38. Sirsī	Thākur	Rāthor Rājput	15	1,352	25,000
39. Tāl	Rāwat	Doria Rājput	10	1,122	10,000
40. Unī	Thākur	Doria Rājput	5	494	1,800
41. Uparwāra	Thākur	Solanki Rājput	10	1,186	20,000
Portions of					
42. Gwalior	... ...	... ...	5,246	638,290	33,49,000
43. Indore	...	... ...	37	12,404	10,000
44. Tonk	... ...	... ...	248	25,286	1,40,000
Railways, cantonments, and stations				23,771	—
		Total	8,919	1,054,753	62,38,917

NOTE.—The area and population of numbers 10-14, 17, 18, 22, 25, 26, 30, 32, and 41, have also been included in their parent State.
* No villages.

lying between 23° 30′ and 24° 30′ N. and 74° 30′ and 78° 10′ E., which is terminated on the south by the great Vindhyan range, on the east by the arm of this same range that strikes north from Bhopāl to Chanderī (the Kulāchala Parvata of the Purānas), on the west by the branch which reaches from Amjhera to Chitor (in Rājputāna), and on the north by the Mukandwāra range which strikes east from Chitor to Chanderī. Under Muhammadan rule the *Sūbah* of Mālwā included, in addition to the tract mentioned, the Nimār district on the south, between the Vindhya and Sātpurā ranges, Mewār (now in Rājputāna) on the west, Hāraoti (the Hāra States of Būndi and Kotah in Rājputāna) on the north, and much of the present Central Provinces on the south-east, including even Garhā Mandlā.

Sindhiā's possessions on this plateau, which comprise the Ujjain, Shājāpur, Mandasor, and Amjhera *zilas*, are known collectively as the Mālwā *prānt*.

Mālwā is always divided by natives into six divisions: Kauntel, the country of which Mandasor is the centre; Bāgar, of which Bānswāra State in Rājputāna is the centre, and in which part of Ratlām State lies; Rāth, the country in which the greater part of Jhābua and Jobat States are situated; Sondwārā, the country of the Sondia tribe, of which Mehidpur is the centre; Umatwāra, the country of the Umat Rājputs, now represented at Rājgarh and Narsinghgarh; and Khīchīwārā, the land of the Khīchī Chauhāns, of which Rāghugarh State is the centre.

Physical aspects.

The plateau is mainly composed of a vast spread of basaltic rock, which forms great rolling downs, dotted over with the flat-topped hills peculiar to that geological formation. The country is highly fertile, being principally covered by the soil here called *mār* or *kālī* by the natives, and 'black cotton soil' by Europeans. The plateau has a general slope towards the north, the great Vindhyan scarp to its south forming the watershed. The chief rivers are the CHAMBAL, SIPRĀ, greater and lesser KĀLĪ SIND, and PĀRBATI. The people are skilful and industrious cultivators. The principal crops are wheat, gram, *jowār*, cotton, and poppy. *Jowār* occupies about 44 per cent. of the cropped area, poppy about 6 per cent. The annual rainfall averages 30 inches. The Rājāsthānī dialect called Mālwī or Rāngrī is spoken by nearly half of the population.

The name of the tract, more correctly Mālavā, was originally the designation of a tribe, which is mentioned in the Mahābhārata and the Rāmāyana; but the earliest reference to their habitation is a somewhat vague statement in the Vishnu Purāna that the Mālavās lived in the Pariyātra mountains, or western Vindhyas, while the name Mālava-desa, 'country of the Mālavās,' is not mentioned in any Sanskrit work before the second century B.C., and then refers to an entirely different locality, probably held by another section of this tribe. From these

rather involved accounts, it appears that the tract now known as Mālwā was not so called till the tenth century A.D., or even later. The *Brihat Sanhitā*, written in the sixth century, does indeed mention a country called Mālavā; but the name is not applied to the present Mālwā, which is called Avantī in the same work, while its inhabitants were known as Avantikās or Ujjayantikās. The latter country, of which Avantī (Ujjain) was the chief town, comprised the tract lying between the Vindhyas on the south, Jhālrapātan (in Rājputāna) on the north, the Chambal river on the west, and the Pārbati on the east. To the east of the Pārbati lay the country of Akara, or Eastern Mālwā, of which Vidisha, now Bhīlsa, was the recognized capital. In the seventh century Mālwā and Ujjain were described as separate principalities by the Chinese traveller Hiuen Tsiang, who placed the former to the west of the latter, possibly in Gujarāt. Another branch of the Mālavās appears to have occupied the country round Nāgaur in Rājputāna, 45 miles north of Kotah, where large numbers of their coins have been found, dating probably from not later than the fourth century A.D. The Mālavās seem to have been at first a nomadic tribe composed of separate units, each under its own headman, but subsequently they formed a regular tribal constitution. They also inaugurated an era which has long been in use among Hindus north of the Narbadā, and is now known as the Vikrama Samvat, the initial year corresponding to 57 B.C. Till the tenth century, however, the word Vikrama is never employed with dates given in this era, which are always designated as of the Mālavā era, the era of the lords of Mālavā, or of the tribal constitution of the Mālavās. No historical event can be connected with its initial year, or with the adoption of the title Vikrama, which certainly has no connexion with any king of that name living in 57 B.C., as is popularly supposed. All the earliest records in this era come from Rājputāna, north-west of Mālwā, and the first inscription in Mālwā proper is that at MANDASOR, dated in the year 493 of the tribal constitution of the Mālavās, or A.D. 436.

History.

According to the early Buddhist books, Avantidesa was one of the sixteen powers of India in Buddha's lifetime, its chief town, Ujjain, being important as one of the principal stages on the great route from the Deccan to Nepāl, which passed through Mahissatī or Māhishmatī, now Maheshwar, and Vidisha or Bhīlsa. The Maurya dynasty held Mālwā among their western provinces, Asoka being governor during his father's lifetime, with his head-quarters at Ujjain. On his accession he erected the great *stūpa* at Sānchī, where a fragment of one of his edicts has been found.

Early in the Christian era the Western Satraps extended their rule over Mālwā. The Kshatrapa, or Satrap, Chāshtana is mentioned by Ptolemy (A.D. 153), who calls him Tiastenos king of Ozene (Ujjain).

From Chāshtana onwards a regular succession of Satraps ruled Mālwā, the most famous being Rudradāman, who added greatly to his dominions, and whose record at Junāgarh in Kāthiāwār (A.D. 150) mentions that he possessed Akara and Avantī, or Eastern and Western Mālwā, he himself ruling from Ujjain, while his other provinces were held by viceroys.

As the rule of the Satraps died away, the Guptas of Magadha rose to power. Samudra Gupta (326–75), in his Allahābād pillar inscription, mentions the Mālavās as a frontier tribe. His successor Chandra Gupta II (375–413) extended his dominions westwards and, driving out the Kshatrapas, annexed Mālwā about A.D. 390, as his records at Sānchī and Udayagiri show. In the next century the Gupta empire broke up; and, though some of the family still held petty principalities, the greater part of the tract fell to the White Hun adventurers, Toramāna and his son Mihirakula. The White Huns probably entered India towards the end of the fifth century, and, after occupying the Punjab, forced their way southwards. During Skanda Gupta's lifetime they were kept in check; but on his death Toramāna occupied the districts round Gwalior, where an inscription put up by his son Mihirakula has been found. Advancing farther southwards, Toramāna and his son soon obtained a footing in Mālwā, which by 500 was entirely in their power, the petty Gupta chiefs Budha Gupta and Bhānu Gupta, of whom records dated 484 and 510 exist, becoming their feudatories. On Toramāna's death about 510, Mihirakula succeeded; but his harsh rule caused a revolt, and about 528 he was defeated by a combination of native princes under Nara Sinha Gupta Bālāditya of Magadha, and Yasodharman, a chief who seems to have ruled at Mandasor, where the battle was fought. Yasodharman erected two pillars at Mandasor, recording his victory, and appears then to have become one of the principal chiefs in Mālwā. In the seventh century the famous king Harshavardhana of Kanauj (606–48) held suzerainty over Mālwā.

It is uncertain when the Mālavās actually entered the tract. From the second to the seventh century, while the country was under the strong rule of the Kshatrapas, the Guptas, and Harshavardhana of Kanauj, they must have held a subordinate position; but on the fall of the brief empire of Kanauj they probably acquired greater independence, and rising in importance gave their name to the region. What exactly happened is uncertain; but it would appear that the Mālavās became gradually Hinduized, possibly from contact with the Brāhman rulers of Ujjain, and being a hardy race of warriors, and as such desirable allies, were promoted to Kshattriya rank, and finally absorbed into the great Rājput families which then began to be evolved out of the heterogeneous elements of which the population of India was composed.

In the tenth century the names of the Rājput clans begin to appear, and Mālwā fell ultimately to the Paramāras (800–1200), a section of the Agnikula group, who fixed their head-quarters first at Ujjain and later at Dhār. They rose to considerable power, so that 'the world is the Paramāra's' became a common saying. The Paramāra lists give a line of nineteen kings whose known records range from the tenth to the thirteenth century, and of whom several were famous for their patronage of literature. The most notable was Rājā Bhoja (1010–53), who was both a great scholar and a great warrior. His renown as a patron of literature and as an author still survives, and he is now looked on as the Augustus of India, while many ancient writers of note and works of merit are assigned to his period. He was finally driven from his throne by a combination of the Chālukyas of Anhilvāda in Gujarāt and the Kalachuris of Tripuri. From this time the Paramāra power declined, his successors being little more than local chiefs.

In 1235 the Muhammadans first appeared under Altamsh, who took Ujjain, demolishing the renowned temple of Mahākāl, and sacked Bhīlsa, thus destroying the two principal towns of Mālwā. From this time the country was held in fief, with occasional lapses, by officers of the Muhammadan court, till in 1401 Dilāwar Khān assumed the insignia of royalty.

From 1401 till 1531, when it was annexed to Gujārat, the province of Mālwā or Māndu, as it was often called after the famous fortress which became its capital under these rulers, remained an independent State. Its princes were incessantly at war with those of Gujarāt, with the Bahmani kings of the Deccan, and with other neighbouring chiefs. Dilāwar Khān Ghorī (1401–5) had originally received Mālwā as a fief under Fīroz Shāh; but during the confusion that followed the invasion of Tīmūr he became independent, making Dhār the capital of his kingdom. He was succeeded by his son Alp Khān, better known as Hoshang Shāh (1405–34), the founder of Hoshangābād, who lies buried in a magnificent marble tomb in the fort at Māndu, to which place he moved the capital. He left a minor son, Muhammad Ghazni Khān, whom his guardian, Mahmūd Khiljī, promptly murdered, seizing the throne for himself. Under Mahmūd Khiljī's rule (1436–75) Mālwā reached the zenith of its power. His activity was unceasing, so that it was said of him that his tent became his home and the field of battle his resting-place, and yet his administration was marked by the absence of all enmity between Hindus and Muhammadans. Mahmūd extended his dominions in all directions, seizing among other places Ajmer and Ranthambhor in Rājputāna, and Ellichpur in the Deccan; and in 1440, at the invitation of certain nobles, he even advanced against Delhi, but was successfully opposed by Bahlol Lodī. In 1440 he

attacked Rānā Kūmbha of Chitor. Both sides claimed the victory, and the Rānā erected the famous Tower of Victory, still standing in the fort, in honour of his success. Mahmūd was succeeded by his son, Ghiyās-ud-dīn (1475–1500). Having undergone much toil and anxiety during his father's lifetime, Ghiyās-ud-dīn soon handed over the reins of government to his son, Nāsir-ud-dīn, and retired to his harem. Nāsir-ud-dīn (1500–10) has left a reputation infamous for cruelty. He is said even to have poisoned his father, an act which roused such indignation in the emperor Jahāngīr that, when visiting Māndu in 1616, he had the king's remains taken out of the tomb and thrown into the Narbadā. Nāsir-ud-dīn was drowned in a tank in the Kāliādeh palace, near Ujjain, into which he had fallen in a drunken fit, no one daring or caring to pull him out. He was succeeded by Mahmūd II (1510–31). Of him the historian relates that he imagined that kingdoms were ruled by the sword, and that he attempted to put this maxim into practice with dire results. Distrusting his own people, he introduced a Rājput, Medini Rai, into his State as minister. In 1517, scared by the increasing power of this man, he called in Sultān Muzaffar Shāh of Gujarāt to assist in his expulsion. Later on, in a fight with Medini Rai and Rānā Sanga of Chitor, he was taken prisoner, but was magnanimously released. This, however, did not deter him from attacking the Rānā's successor some years later, when he was again taken prisoner by the Rānā's ally, Bahādur Shāh of Gujarāt, and put to death while attempting to escape. The Mālwā dynasty thus came to an end, the kingdom being annexed to Gujarāt (1531).

In 1535 Humāyūn attacked Bahādur Shāh and drove him out of Mālwā, defeating him successively at Mandasor and Māndu. During the rule of the Sūri dynasty (1540–55), Mālwā was held by Sher Shāh's right-hand man Shujāat Khān, known locally by the name of Shujāwal Khān, the founder of Shujālpur, and on his death by his son Bāz Bahādur, chiefly famous for his musical talent, and his romantic attachment to the beautiful and accomplished Rūpmatī of Sārangpur. In 1562 Bāz Bahādur was forced to submit to Akbar, and Mālwā became a Mughal province, continuing so until the eighteenth century. Abul Fazl deals with the province at some length in the *Ain-i-Akbarī*. The *Sūbah* varied considerably in extent at different times. In 1594 it contained twelve *sarkārs* (districts), but in 1665 it had only nine. Mālwā possessed special importance from its position on the great Mughal route, along which armies marched from Delhi to the Deccan, the road passing by Dholpur, Gwalior, Narwar, Sironj, and Hindia. Among the numerous governors of Mālwā during this period were prince Murād (1591), the first Nizām-ul-mulk (1719), and Mahārājā Sawai Jai Singh of Jaipur (1734).

The Marāthā period of Mālwā history forms the subject of Sir John Malcolm's *Central India*, where it is treated in great detail. Briefly, the Marāthās gained a permanent footing in Mālwā about 1743, when the Peshwā was made deputy-governor of the *Sūbah*. By degrees the whole country fell to the great Marāthā generals, whose descendants still hold most of it—Sindhia of Gwalior, Holkar of Indore, and the Ponwārs of Dhār and Dewās.

In the middle of the eighteenth century the British appeared as actors on this scene; and Mālwā from 1780 onwards, for a quarter of a century, was a vast battle-field where Marāthā, Muhammadan, and European struggled incessantly, until the supremacy of the British was finally established in 1818. During the next forty years the history of Mālwā was comparatively uneventful; but in connexion with the Mutiny of 1857 risings took place at Indore, Mhow, Nīmach, Agar, Mehidpur, and Sehore. In 1899–1900 Mālwā suffered from a severe famine, such as had not visited this favoured spot for more than thirty years. The people were unused to, and quite unprepared for, this calamity, the distress being aggravated by the great influx of immigrants from Rājputāna, who had hitherto always been sure of relief in this region, of which the fertility is proverbial. In 1903 a new calamity appeared in the shape of plague, which has seriously reduced the agricultural population in some districts.

[For Mālavās and Kshatrapas, see *Journal of the Royal Asiatic Society*, 1890, p. 639, 1897, p. 17, and 1899, p. 357; for Guptas and Hunas, J. F. Fleet's 'Gupta Inscriptions,' vol. iii of the *Corpus Inscriptionum Indicarum*; *Journal Asiatique*, 1883; *Journal of the Royal Asiatic Society*, 1893, p. 77, and 1897, pp. 19, 421, 850, and 882; for Paramāras, *Epigraphia Indica*, vol. i, p. 222; for Muhammadan dynasty, L. White-King, *Numismatic Chronicle* (1904).]

Mālwā (2).—Tract in the Punjab, lying between 29° and 31° N. and 74° 30′ and 77° E., and comprising the area south of the Sutlej occupied by the Sikhs. It includes the Districts of Ferozepore and Ludhiāna, and the Native States of Patiāla, Jīnd, Nābha, and Māler Kotla. The tract is a great recruiting ground for Sikh regiments, being in this respect second only to the Mānjha. It is said that the name is a modern one, the title of Mālavā Singh having been conferred on the Sikhs of the tract for their valour by Banda, Bairāgi, who promised that it should become as fruitful as Mālwā.

Māmandūr.—Village in the Arcot *tāluk* of North Arcot District, Madras, situated in 12° 45′ N. and 79° 40′ E. Population (1901), 1,884. It is chiefly remarkable for its rock-caves. The embankment of the large tank to which the village gives its name rests upon two low hills, and in the eastern face of the more southerly of these are the excavations. They were probably the work of the Jains; and possibly

a party of monks from Conjeeveram, which is only 7 miles distant, may here have hollowed out for themselves a retreat with narrow cells into which each might retire to indulge in solitary meditation.

Mamdāpur.—Historic village in the District and *tāluka* of Bijāpur, Bombay, situated in 16° 32′ N. and 75° 36′ E., 6 miles north of the Kistna and about 22 miles south-west of Bijāpur town. Population (1901), 2,232. The story goes that Muhammad (1626–56), the sixth Bijāpur Sultān, wished to know what the Konkan was like. His prime minister, the celebrated Jagad-Murāri, built ponds, laid out fields, and planted trees and vegetables from the Konkan on the site of Mamdāpur, which so pleased the Sultān that, about 1633, he united the villages of Antāpur, Barigi, Khāsbāgh, and Chavdāpur, and named the new village after himself, fulfilling the prophecy of a saint, Kamāl Sāhib of Chavdāpur, who had foretold the event. The saint's tomb is in the middle of the market and is highly honoured. In the shrine is the grave of another saint, Sadle Sāhib of Mecca, who died here and in whose honour a fair is held yearly. There are numerous temples. Mamdāpur contains two lakes made by Sultān Muhammad, when the town was built. The great lake is probably the largest existing reservoir of native construction in the Bombay Presidency. When full, its surface area is 864 acres, or 1⅓ square miles; the dam is 2,662 feet long, or just over half a mile, and its greatest height is 27 feet 9 inches. Except in seasons of unusual drought the water in this lake lasts throughout the year. The smaller lake, to the east of the large lake, when full has a surface area of 428 acres and a greatest depth of 12 feet; the dam is 1,180 feet long. The inscriptions cut on the dams show that both were built in 1633 at a cost of about 2 lakhs (50,000 pagodas) by Sultān Muhammad.

Mamdot Estate (*Muhammadot*).—Estate in the Ferozepore, Muktsar, and Fāzilka *tahsīls* of Ferozepore District, Punjab. Area, 83 square miles of proprietary land, with 309 held in *jāgīr*. It is held by the minor Nawāb of Mamdot, Ghulām Kutb-ud-dīn Khān, a Pathān, whose ancestor Kutb-ud-dīn Khān held the principality of Kasūr, but was expelled from it by Ranjīt Singh in 1807 and retired to Mamdot, which he had conquered from the Raikot chief in 1800. His son Jamāl-ud-dīn Khān held Mamdot as a fief of the Lahore kingdom till 1848, when he received the title of Nawāb, with the powers of a ruling chief, from the British Government; but the powers thus conferred were abused by Jamāl-ud-dīn Khān, and were therefore withdrawn, the State being annexed to British territory in 1855. It was, however, subsequently conferred as an estate on the Nawāb's younger brother Jalāl-ud-dīn Khān, who had rendered good service in 1848 and 1857. Jalāl-ud-dīn died in 1875, leaving a minor son, by name Nizām-ud-dīn Khān, and the estate was managed by the

Court of Wards until 1884, when the ward came of age and took charge of it. He died in 1891, leaving an infant son and the estate heavily involved in debt. It is now again under control of the Court of Wards, and the young Nawāb is being educated at the Aitchison College, Lahore. The gross income of the estate, which is the finest in the Punjab, is now Rs. 3,80,000. It owes its prosperity mainly to the Grey Canals.

Mamdot Village.—Village in Ferozepore District, Punjab, and former capital of a State, situated in 30° 53′ N. and 74° 26′ E., on the open plain, about 2 miles south of the Sutlej. Population (1901), 2,631. The walls rise to a height of 50 feet, and have a rectangular form, with a round tower at each corner and in the middle of each face. More than two-thirds of the fort was carried away in 1877–8 by the Sutlej, and a branch of that river now flows under the walls of the remainder. Anciently known as Muhammadot, it formed the centre of an *ilāka*, which became depopulated during the Mughal period and was occupied by the Dogars about 1750. Shortly afterwards, the Dogars made themselves independent, but were reduced to subjection by Sardār Subha Singh, a Sikh chieftain. With the assistance of the Rai of Raikot, they expelled the Sikhs; but the Rai made himself supreme at Mamdot, and the Dogars then revolted with the aid of Nizām-ud-dīn and Kutb-ud-dīn of Kasūr. Nizām-ud-dīn was murdered by his three brothers-in-law, whom he had ousted from their *jāgīrs*. Kutb-ud-dīn eventually submitted to Ranjīt Singh, relinquishing Kasūr, but retaining Mamdot in *jāgīr* subject to the service of 100 horse. Nizām-ud-dīn's son received a corresponding *jāgīr* in Gogaira, but laid claim to Mamdot. With the Dogars' aid he expelled Kutb-ud-dīn, but was finally recalled by the Mahārājā, who confirmed Jamāl-ud-dīn, son of Kutb-ud-dīn, in the succession. Jamāl-ud-dīn sided openly with the Sikhs in 1845, but rendered certain services towards the close of the campaign to the British Government, which requited him by maintaining him in possession of Mamdot as a protected chief with the title of Nawāb. Jamāl-ud-dīn, however, was guilty of serious misgovernment, and the Dogars especially, having incurred his resentment, suffered grave oppression. The British Government therefore, after an inquiry, deposed him in 1855, and annexed his territory. His estates were in 1864 conferred on his brother Jalāl-ud-dīn, to the exclusion of his sons. The present Nawāb, Ghulām Kutb-ud-dīn, who succeeded in 1891, is the grandson of Jalāl-ud-dīn.

Mān.—*Tāluka* of Sātāra District, Bombay, lying between 17° 27′ and 17° 56′ N. and 74° 17′ and 74° 53′ E., with an area of 629 square miles. It contains one town, MHASVĀD (population, 7,014), and 76 villages. The head-quarters are at Dahivadi. The population in 1901 was 64,889, compared with 62,857 in 1891. It is the most

thinly populated *tāluka* in the District, having a density of only 103 persons per square mile. The demand for land revenue in 1903–4 was Rs. 92,000, and for cesses Rs. 7,000. The climate is decidedly hotter than the rest of the District, which is chiefly due to the low level of the *tāluka* and the fact of its being shut in on three sides by hills. Towards the north-west the hills form picturesque groups, their highest peaks crowned by the Vārugarh and Tāthvāda forts, and to the east of Dahivadi is a fine gorge, traversed by streams; but, except for a sparsely-wooded tract near the Mān river, the country is barren, rocky, and desolate. The annual rainfall, which averages 20 inches at Dahivadi, is variable and scanty, and hardly suffices for the proper cultivation of the small area of black soil in the *tāluka*.

Mānā.—Village in Garhwāl District, United Provinces, situated in 31° 5′ N. and 79° 26′ E., on the Saraswatī, an affluent of the Bishanganga, 10,560 feet above sea-level. It lies close to a pass of the same name, also known as Chirbitya-lā or Dungrī-lā, which has an elevation of 18,650 feet. Though very lofty, it is one of the easiest passes into Tibet from the south, and is therefore much used by Hindu pilgrims to Lake Mānasarowar. The village is chiefly inhabited by Bhotiā traders with Tibet.

Manaar, Gulf of.—A portion of the Indian Ocean, bounded on the west by Tinnevelly and Madura Districts in the Madras Presidency, on the north by the ridge of rock and islands known as ADAM'S BRIDGE, and on the east by the coast of Ceylon. It lies between 8° and 9° N. and 78° and 80° E. Its extreme breadth from Cape Comorin, the southernmost point of India, to Point de Galle, the southernmost point of Ceylon, is about 200 miles. The gulf abounds in dangerous shoals and rocks at the northern extremity, and is exposed to the fury of both the monsoons, being quite open towards the south-west and only partially protected by the Ceylon coast on the north-east.

Manabum.—Range of hills on the extreme eastern frontier of Lakhimpur District, Assam, lying between 27° 30′ and 27° 47′ N. and 95° 54′ and 96° 18′ E. These hills are an outlying spur of the mountain country occupied by the Singphos and Khamtis, and mark the eastern limit of the administrative jurisdiction of the British Government.

Mānantoddy.—Village in the Wynaad *tāluk* of Malabar District, Madras, situated in 11° 49′ N. and 76° E. Population (1901), 2,000. It is the head-quarters of the divisional officer and *tahsīldār*, and of one of the two Forest officers of the District.

Manar, Gulf of.—Gulf between India and Ceylon. *See* MANAAR, GULF OF.

Manārgudi.—Subdivision, *tāluk*, and town in Tanjore District, Madras. *See* MANNĀRGUDI.

Manās.—River of Assam, which rises in the Bhutān hills and

enters the valley of the Brahmaputra at the point where the Districts of Kāmrūp and Goālpāra meet. It once formed the boundary between these, but its channel is subject to frequent changes, and the greater part of its present course lies within Goālpāra. The principal tributaries are: on the right bank, the Makra, Dulani, Ai, Pomajan, Bhandura, and Koija; and on the left bank, the Chaulkhoā. The banks are, as a rule, covered with jungle; and the river is not much used as a trade route above its junction with the Chaulkhoā, though boats of 4 tons burden could probably go as far as Mowkhoā at all seasons of the year. Some damage is caused by the floods of an old channel known as the Mora Manās. The total length of the Manās is about 200 miles.

Manāsa.—Town in the Rāmpura-Bhānpura district of Indore State, Central India, and head-quarters of the *pargana* of the same name, situated in 24° 29′ N. and in 75° 11′ E., 1,440 feet above sea-level. Population (1901), 4,589. The town is said to have been founded by Māna Patel of the Mīnā tribe. From an inscription in the temple to Kherāpati, it must have been in existence in the twelfth century. In 1749 it was held by Rājā Mādho Singh of Jaipur, falling to Holkar in 1752 with the Rāmpura district. Besides the *pargana* offices, a school, a dispensary, a State post office, and an inspection bungalow are situated in the town.

Manauli.—Estate in the Kharar and Rūpar *tahsīls* of Ambāla District, Punjab, with an area of 11 square miles. It was the principal *jāgīr* held till recently by a member of the Faizullahpuria or Singhpuria family, which was one of the twelve great Sikh *misls* or confederacies. Founded early in the eighteenth century by Kapūr Singh, a Jat of Amritsar District, the family played a great part in the Jullundur Doāb under his great-nephew, Budh Singh. In 1811, however, the Singhpurias were expelled from their territories north of the Sutlej by Ranjīt Singh's generals, and confined to the estates south of that river, which they still hold. From 1809 to 1846 the family ranked as independent protected chiefs, but they lost their status in the latter year. The last owner, Sardār Raghubīr Singh, held 81 villages in *jāgīr*. These yield a net revenue of Rs. 36,000, and the Sardār had also other estates. After his death in 1904, the *jāgīr* was divided among a number of his relatives.

Manaung.—Island forming part of Kyaukpyu District, Lower Burma. *See* CHEDUBA.

Mānāvadar (or Bāntva-Mānāvadar).—State in the Kāthiāwār Political Agency, Bombay, lying between 21° 23′ and 21° 41′ N. and 70° 2′ and 70° 23′ E., with an area of 90 square miles. The population in 1901 was 14,478, residing in 23 villages. The revenue in 1903-4 was Rs. 2,35,447, and 83 square miles were cultivated. Mānāvadar

ranks as a third-class State in Kāthiāwār. The ruling family is Musalmān, and is descended from a younger son of the second Nawāb of Junāgarh, to whom the Bāntva territory was made over in 1740. Engagements to keep order and remain at peace were entered into with the British Government in 1807. There are two sharers with the ruling chief, both holding the title of Bābi, one of whom resides at Sardārgarh and the other at Bāntva.

Mānāvān.—Petty State in KĀTHIĀWĀR, Bombay.

Mānbhūm.—District in the Chotā Nāgpur Division of Bengal, lying between 22° 43′ and 24° 4′ N. and 85° 49′ and 86° 54′ E., with an area of 4,147 square miles. It is bounded on the north by Hazāribāgh and the Santāl Parganas; on the east by Burdwān, Bānkurā, and Midnapore; on the south by Singhbhūm; and on the west by Rānchī and Hazāribāgh. The whole of the northern boundary is marked by the Barākar river; on the north-east, the Barākar and Dāmodar rivers separate the District from Burdwān; while the Subarnarekhā flows along the boundary for short distances on the west and south.

Physical aspects.

Mānbhūm District forms the first step of a gradual descent from the table-land of Chotā Nāgpur to the delta of Lower Bengal. The undulation so characteristic of Chotā Nāgpur here becomes less pronounced, and level tracts of considerable extent are of frequent occurrence. In the north and east the country is open, and consists of a series of rolling downs, dotted here and there with isolated conical hills. During the hot season the scarcity of trees gives to this part of the country a scorched and dreary appearance; but in the rains the fresh green of the young rice and the varying foliage of the low jungle form contrasts of colouring with the soil, and the scenery assumes a park-like aspect. In the west and south the country is more broken and the scenery far more picturesque. Here the Bāghmundi range striking out from the plateau of Chotā Nāgpur, and farther to the south the Dalmā range dividing Mānbhūm from Singhbhūm, stand up as commanding features in the landscape. These hills are covered almost to their summits with large and heavy forest. The principal hills are Dalmā (3,407 feet), the highest peak of the range of that name; Pānchkot or Pānchet (1,600 feet), situated to the north-east of Purūlia; and Gangabāri or Gajburu, the highest peak of the Bāghmundi plateau, situated about 20 miles south-west from Purūlia. The principal river is the Kāsai, which flows through the District from north-west to south-east and then turns almost due south as it passes into Midnapore; the total length of its course is about 171 miles. Just above Raipur the Kāsai forms rapids and several picturesque waterfalls of no great height. The DĀMODAR flows

through Mānbhūm in an easterly direction with a slight inclination to the south. Its chief tributary, the BARĀKAR, has already been mentioned as forming part of the north-eastern boundary of the District, and the SUBARNAREKHĀ as dividing it on the west and south from Rānchī and Singhbhūm. The only other rivers of any importance are the Dhalkisor, which rises in the east of Mānbhūm and after a short south-easterly course enters Bānkurā; and the Silai, also rising in the east of the District and flowing south-east into Bānkurā.

The geological formations are the Archaean and the Gondwāna. The Archaean rocks consist of gneiss and crystalline schists, the gneiss occupying by far the largest portion of the District. It belongs principally to the group known as Bengal gneiss, which is remarkable for its varied composition, consisting of successive bands of intermixed granitic, granulitic, and dioritic gneisses, and micaceous chloritic and hornblendic schists, with a laminated or foliated structure striking usually east and west. About the centre of the District is a great belt of unfoliated or only slightly foliated granitic intrusions, also striking east and west, and extending westwards into the adjacent District of Rānchī. Crystalline limestones occasionally occur. Along the southern boundary there exists a group of rocks resembling the Dhārwār schists of Southern India, which were originally sedimentary and volcanic, but have been altered into quartzites, quartzitic sandstones, slates of various kinds, hornblendic mica, and talcose and chloritic schists, the latter passing into potstones, green stones, and epidiorites.

Quite close to the southern boundary of Mānbhūm the schists are invaded by a gigantic dike of basic igneous rock, forming an imposing east and west range which culminates in the lofty Dalmā hill. The schists are here more metamorphosed than elsewhere, with a considerable development of iron ores; in this neighbourhood, moreover, the rocks are richest in gold.

The Gondwānas, whose age as determined by fossil plants is partly upper palaeozoic and partly mesozoic, are the principal rocks from an economic point of view. They occur along the Dāmodar river and form the Rānīganj coal-field, the western portion of which lies in Mānbhūm, and the rich Jherriā coal-field almost entirely situated within the District. The Gondwāna rocks comprise the Mahādeva, Pānchet, Rānīganj, ironstone shales, Barākar, and Tālcher divisions, of which all but the first belong to the Lower Gondwānas. The series consists throughout almost exclusively of shales and sandstones. The coal seams are restricted to the Barākar and Rānīganj divisions.

The coal-fields owe their preservation from denudation and their

present situation to a system of faults that has sunk them amidst the surrounding gneiss. The faults are easily recognized along their boundaries, especially on the south, and sulphurous hot springs are often situated in their neighbourhood. Innumerable fissures are occupied by intrusive dikes of basalt and of mica-apatite-peridotite, the latter being frequently detrimental to the coal seams, which have often been burnt away by it. These intrusions are of the same age as the volcanic rocks of the Rājmahāl hills[1].

The narrower valleys are often embanked for rice cultivation, and the rice-fields and their margins abound in marsh and water plants. The surface of the plateau land between the valleys, where level, is often bare and rocky, but where undulating is usually clothed with a dense scrub jungle, in which *Dendrocalamus strictus* is prominent. The steep slopes of the higher hills are covered with a dense forest mixed with climbers. *Sal* (*Shorea robusta*) is gregarious; among the other noteworthy trees are species of *Buchanania*, *Semecarpus*, *Terminalia*, *Cedrela*, *Cassia*, *Butea*, *Bauhinia*, *Acacia*, and *Adina*, which these forests share with similar ones on the lower Himālayan slopes. Mixed with these, however, are a number of characteristically Central India trees and shrubs, such as *Cochlospermum*, *Soymida*, *Boswellia*, *Hardwickia*, and *Bassia*, which do not cross the Gangetic plain. One of the features of the upper edge of the hills is a dwarf palm, *Phoenix acaulis*; while the wealth of scarlet blossom in the hot season produced by the abundance of *Butea frondosa* and *B. superba* is also striking.

Tigers, leopards, bears, wolves, hyenas, deer, and wild dogs were formerly common, but are now decreasing in numbers, tigers being very rare visitors. The short-tailed Indian pangolin (*Manis pentadactyla*), which owing to its peculiar habits is one of the least-known quadrupeds in India, is occasionally found in the jungles bordering on Singhbhūm.

Temperature is moderate, except during the hot months of April, May, and June, when the westerly winds from Central India cause great heat with very low humidity. The mean temperature increases from 82° in March to 89° in April, May, and June, the mean maximum from 95° in March to 101° in May, and the mean minimum from 68° to 76°. The annual rainfall averages 53 inches, of which 8·9 inches fall in June, 13·4 in July, 13·2 in August, and 7·8 in September.

[1] The Archaean series has been described by V. Ball, *Memoirs, Geological Survey of India*, vol. xviii, pt. ii; the Rānīganj coal-field by W. T. Blanford, *Memoirs*, vol. iii, pt. i; the Jherriā coal-field by Th. Hughes, *Memoirs*, vol. v, pt. iii, and by Th. Ward, *Records, Geological Survey of India*, vol. xxv, pt. ii; the mica-apatite-peridotites by T. H. Holland, *Records*, vol. xxvii, pt. iv.

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The distinctive tribe of the District is the Bhumij, who are closely allied to the Mundās and have been identified with the Bajra Bhūmi of Jain legendary history. The ancient Jains have left their traces in the ruins of temples near Purūlia and several places along the course of the Kāsai and Dāmodar rivers; but we have no authentic records of this part of the country till Muhammadan times, when it was regarded as part of the Jhārkand or 'forest tract,' which is the name given in the *Akbarnāma* to the whole region from Bīrbhūm and Pānchet to Ratanpur in the Central Provinces and from Rohtāsgarh in South Bihār to the frontier of Orissa. In the *Bādshāhnāma* the *zamīndār* of Pānchet is shown as a commander of horse under Shāh Jahān, and his *zamīndāri* was subject to a fixed *peshkash*. The territory comprised in the present District of Mānbhūm was acquired by the British with the grant of the Dīwāni of Bengal, Bihār, and Orissa in 1765. Up to 1805 the estates contained in it were attached, some to Bīrbhūm and some to Midnapore; but in that year they were formed with a few others into a separate District called the JUNGLE MAHĀLS. In 1832 one Gangā Nārāyan, a claimant to the Barābhūm estate in this District, rose in rebellion, but was driven to Singhbhūm, where he died. As a result of these disturbances, a change of administration was determined upon, and by Regulation XIII of 1833 the District of the Jungle Mahāls was broken up; the estates of Senpahāri, Shergarh, and Bishnupur were transferred to Burdwān, while the remainder, with the estate of Dhalbhūm detached at the same time from Midnapore, were formed into the present District of Mānbhūm, which was withdrawn from the regular system of administration and placed under an officer called the Principal Assistant to the Agent to the Governor-General for the South-West Frontier. Subsequently, by Act XX of 1854, his title was changed to Deputy-Commissioner, and that of the Governor-General's Agent to Commissioner of Chotā Nāgpur. Dhalbhūm had again been transferred to Singhbhūm eight years previous to this, and the District of Mānbhūm was reduced to its present area by further transfers of minor importance in 1871 and 1879. When the District was first constituted, the civil station was fixed at Mānbāzār, but it was transferred to Purūlia in 1838. During the Mutiny of 1857 the military garrison at Purūlia, which consisted of 64 sepoys of the Rāmgarh battalion and 12 *sowārs*, all Hindustānis, plundered the treasury, released the prisoners in the jail, burnt the records, and then marched off towards Rānchī.

History.

The District contains several interesting archaeological remains. The most ancient of these are ascribed to the Jain Sārāks, including ruins at PALMA, CHARRĀ, Pākbirā, where a temple, belonging probably to the seventh century, contains a statue of the Jain hierarch Arnanāth,

and Deoli, where there is a group of temples, one containing a fine Jain figure now also known as Arnanāth. Instances of early Brāhmanical architecture occur in the villages of Pāra and Katrās. A group of temples at Telkupī on the Dāmodar belongs apparently to the early part of the Muhammadan period. Other interesting ruins exist at DALMĪ, BORĀM, and PĀNCHET.

Population.

The population increased from 820,521 in 1872 to 1,058,228 in 1881, to 1,193,328 in 1891, and to 1,301,364 in 1901. This rapid growth is due mainly to the healthiness of the climate and the fecundity of the aboriginal tribes who form the majority of the inhabitants; in 1881 it was also due in part to better enumeration, while recently the natural increase has been assisted by the opening up of the country by railways and the growth of the coal industry. Blindness and leprosy are exceptionally common.

The principal statistics of the Census of 1901 are shown below:—

Subdivision.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Purūlia	3,344	3	4,273	1,024,242	306	+ 5·4	42,323
Gobindpur	803	...	1,248	277,122	345	+ 25·1	10,104
District total	4,147	3	5,521	1,301,364	314	+ 9·1	52,427

The three towns are PURŪLIA, the head-quarters, JHALIDĀ, and RAGHUNĀTHPUR. The density is greatest in the alluvial tract along the banks of the Dāmodar; in the broken country in the north-west and south the inhabitants are fewer, except in the neighbourhood of the Jherriā coal-field, where the mines attract large numbers of coolies. The Jherriā and Topchānchi *thānas* in the north-west, which contain the greater number of the collieries, grew by 75 and 30 per cent. respectively during the decade ending 1901, accounting between them for over 45 per cent. of the total increase. A large number of immigrants, chiefly from Hazāribāgh, Bihār, and the United Provinces, come to work in the mines; but the emigrants, more than half of whom were enumerated in Assam, exceed the immigrants by over 74,000. The vernacular of the District is the western dialect of Bengali known as Rārhi *boli*. Along the western border this merges into Hindī, the dialect spoken being locally known as Kārmālī or Khottā, or even Khottā Bangalā. Santālī is spoken by 182,000 persons. Hindus number 1,132,619, or 87 per cent. of the total; Animists, 103,011, or 7·9 per cent.; and Muhammadans, 62,799, or 4·8 per cent.

The aboriginal element is strongly represented, the most numerous tribes being the Santāls (195,000, of whom 96,000 were returned as

Hindus, and 99,000 as Animists), BHUMIJS (109,000), and Koras (22,000). Many of the lower Hindu castes consist to a great extent of aboriginal elements; such are the Bauris (99,000), Bhuiyās (37,000), Rajwārs (32,000), and Doms (19,000), and probably also the Kurmīs (241,000), the most numerous caste in the District. Agriculture supports 67 per cent. of the population, industries 11·7 per cent., and the professions 1·3 per cent.

Christians number 2,910, of whom 2,599 are natives. The German Evangelistic Lutheran Mission, which began work in 1864, maintains schools and also works among the lepers; while a mission of the Free Church of Scotland in the Gobindpur subdivision has a community of 700.

Agriculture.

The surface consists of a succession of rolling uplands with intervening hollows, along which the drainage runs off to join the larger streams. The soil is for the most part composed of hard, dry, ferruginous gravel, which has been furrowed into countless small channels by the discharge of surface drainage; but many of the lower levels are filled with good alluvial soil. The lower slopes of these uplands, and the swampy ground between, supply the only land on which a wet rice crop can be grown without elaborate levelling and embanking. The hill-sides, when terraced for rice cultivation, present the appearance of a series of steps varying from 1 to 5 feet in height. In some cases the beds of streams are banked up at intervals and made into long narrow rice fields.

The chief agricultural statistics for 1903–4 are shown below, areas being in square miles:—

Subdivision.	Total.	Cultivated.	Cultivable waste.	Forest.
Purūlia . . .	3,344	1,485	161	11
Gobindpur . .	803	470	51	4
Total	4,147	1,955	212	15

It is estimated that 10 per cent. of the cultivated area is twice cropped. The most important staple is rice, which covers an area of 1,428 square miles. Two principal crops are grown: the *nuān* or *aus*, which is sown broadcast as soon as possible after the first good fall of rain and reaped at the end of September; and the *haimantik* or *āman*, which is sown in a nursery about the end of May and afterwards transplanted and finally reaped from November to January. A third but less important crop, the summer rice or *gorādhān*, is sown broadcast in May on table-lands and tops of ridges, and is reaped in August. The first two crops are grown only on lands where there is a good supply of water. Other important cereals are maize grown on

172 square miles, *maruā*, *bājra*, wheat, and barley. Green crops and pulses—including gram, *mūng*, *kalai*, *rahar*, peas, *khesāri*, beans, *kurthī*, and *masurī*—are cultivated on 245 square miles. Among oilseeds rape and mustard are grown on 52 square miles, and *til* on about 16 square miles. Some sugar-cane, cotton, and tobacco are also grown. Rotation of crops is practised to a very limited extent. Manure is used for all crops to which the cultivator can afford to apply it. It usually consists of cow-dung, ashes, decayed leaves and grass, and black mud mixed with decayed vegetable matter gathered from the bottoms and sides of stagnant pools and tanks.

There is an ever-increasing demand for land; and, in spite of the unusual amount of labour required to bring fresh fields under cultivation, reclamation is steadily proceeding under the tenures known as *nayābādi* and *jalsāsan*. The proportion of uncultivated waste is still high, but it is estimated that during the decade ending 1901–2 there was an increase of 60 per cent. in the area under crops. Little advantage is taken of the provisions of the Land Improvement and Agriculturists' Loans Acts, but during the lean years 1896–8 about Rs. 86,000 was advanced under the provisions of these Acts.

The local cattle are small, but a larger variety is sometimes obtained by cross-breeding with large Hazāribāgh bulls. Regular pasture-grounds are rare; but sufficient rice straw is kept in stock by the ryots for fodder during the hot months, and after the break of the rains the extensive waste lands of the District afford ample pasturage. Fairs are held annually at Chākultor, south of Purūlia, in September for a month, and at Anāra on the Purūlia-Barākar road for about twenty days in April.

The surface drainage is rapid and the soil dries up quickly; irrigation of some kind is thus essential for most crops. There are no canals or other artificial water-courses, but there is a very large number of tanks and *āhars*. The latter are reservoirs, often of considerable size, constructed by running a dam across a ravine or dip, thereby holding up the natural surface drainage. The fields below the dam are kept continually moist by the percolation of the water.

There are two small 'protected' forests, but no revenue is derived from them. The predominant tree is *sāl* (*Shorea robusta*). The principal minor jungle products are lac, catechu, *sabai* grass, and *tasar* silk cocoons. Lac rearing forms the occupation of a large section of the population. The best variety is produced on *kusum* trees (*Schleichera trijuga*), and inferior qualities on *ber* (*Zizyphus Jujuba*) and *palās* (*Butea frondosa*). The chief edible jungle products are the flowers of the *mahuā* (*Bassia latifolia*) and the fruits of the *ber* and *singhāra* (*Trapa bispinosa*).

The most important mineral in Mānbhūm is coal, which is mined

on a large scale in the Gobindpur subdivision. The Jherriā coal-field occupies an area of about 180 square miles, and a portion of the Rānīganj-Barākar field also extends into the District.

Minerals.

Coal had long been known to exist in Mānbhūm, but as recently as 1891 only two mines were being worked, with an output of 78,000 tons. The Jherriā field was tapped by the railway in 1894; and the output of coal from the collieries of the District rose from 129,000 tons in that year to 1,281,000 tons in 1895, nearly the whole of the increase coming from the Jherriā field. After a short period of depression in the two following years the industry has grown steadily, and in 1903 as many as 141 collieries were at work: namely, 115 in the Jherriā field and 26 in the Rānīganj field, with outputs of 2,746,000 tons and 246,000 tons, and giving employment to 28,000 and 3,000 persons respectively. The most important concerns are those of the Barākar Coal Company, Jardine Skinner & Co., the Standard Coal Company, Agabeg Brothers, MacLeod & Co., Turner Morrison & Co., the Rānīganj Coal Association, the Bengal Coal Company, and the Bengal-Nāgpur Coal Company.

Steam-power is generally used in the Rānīganj field, but only in twenty-four collieries in the Jherriā field, where good coal is often found very near the surface and the roof in many instances is of hard stone, and the system of working by means of inclines is practicable. Shafts are never of the depths common in most collieries in England, and the mines are consequently free from the danger arising from gas; the deepest shaft in the Jherriā field is one of 320 feet belonging to the Bhāgā colliery.

Many of the labourers employed are local residents, but a large number also come from Hazāribāgh; they generally belong to the aboriginal tribes or low Hindu castes. The relations between capital and labour appear to be on the whole satisfactory, and as the demand for labour is very great, a colliery manager has every inducement to treat his miners well; they are generally paid by piece-work at rates varying from 12 annas to Rs. 1–4 per 100 cubic feet of coal raised, the wages earned usually amounting to 7 or 8 annas a day.

About three-fourths of the coal produced is purchased by large European firms who carry it by rail to Calcutta. A small quantity is used by mills and steamships there; but by far the greater portion is shipped to Bombay, Karachi, Madras, Penang, Singapore, and other ports. About one-fourth of the output is consumed by different railways and by mills in the Upper Provinces.

A clay ironstone, constituting a large proportion of the ironstone shales, is especially rich and plentiful in the Rānīganj coal-field, where it is sometimes associated with carbonaceous matter forming a black-band iron ore. Among the gneissose and schistose rocks there are

magnetic and titaniferous iron ores. Red hematite occurs in the siliceous fault breccias of the same areas, and lateritic iron ores also exist. The rocks on the southern boundary of the District constitute part of the northern edge of the auriferous tract of Chotā Nāgpur. They are traversed by innumerable gold-bearing quartz veins, from which has been derived the alluvial gold obtained in all the rivers that drain the schist area. The Pātkūm prospecting syndicate attempted to work the gold on an extensive scale, but failed, and the careful investigation to which the area has been subjected of late years leaves very little hope of extracting the gold at a profit. A vein of argentiferous galena occurs about a mile east of Dhādka, in the south-east of the District. Several small soapstone quarries are worked, and rubble, quartz, *kankar*, sandstone, trap, and basalt are also quarried.

Trade and communications.

Shellac is largely manufactured, especially in the Jhalidā and Balarāmpur *thānas*, and 54 factories employing 1,400 hands were at work in 1903–4. The manufacture of *tasar* silk is carried on chiefly in the Raghunāthpur *thāna*, and was formerly an important industry; but in 1903–4 the estimated out-turn was only 16,000 yards. Coarse cotton cloths are woven all over the District, and are preferred by the lower classes to the imported machine-made article on account of their superior durability. Brass and bell-metal utensils and rough brass ornaments are also manufactured in several places. Soapstone found in the Chāndil *thāna* is made into cups, images, &c., but the industry is small. An inferior quality of rope is made from *sabai* grass, which grows extensively in the Pātkūm, Bāghmundi, Barābhūm, and Heslā *parganas*. Cutlery and guns are made at Jhalidā.

The chief exports are coal and coke; and the chief imports are salt, rice, gram, pulses, kerosene oil, cotton twist and cotton piece-goods, molasses, sugar, and tobacco. Most of the imports come from Calcutta and Burdwān, with the exception of gram, pulses, tobacco, and molasses, which come chiefly from Bihār. The coal exported by rail in 1903–4 amounted to over 2,000,000 tons, of which nearly three-quarters was sent to Calcutta and Howrah. The principal trade centres are Purūlia, Jhalidā, Chās, Raghunāthpur, Chāndil, Chirkundā, Gobindpur, Mānbāzār, Ichāgarh, Barabāzār, Dubrā, and Nirsā. Most of the external trade is carried on by rail; bullock-carts are extensively used for local traffic. The greater part of the trade is carried on by Mārwāris and Gandhabaniks.

The Bengal-Nāgpur Railway traverses the head-quarters subdivision from north-east to south-west. The Jherriā extension of the East Indian Railway with its numerous sidings connects the coal-fields of the Gobindpur subdivision with Asansol and Calcutta, and has been carried on to Bānkurā and Midnapore, intersecting the Bengal-Nāgpur

Railway at Adrā station. Another line recently constructed links up Jherriā with Gayā. The District contains 818 miles of road, of which 682 miles are under the control of the District board and the remainder are Provincial, 59 miles being maintained by the District board and 77 being in charge of the Public Works department. The Provincial roads, of which 119 miles are metalled, include 41 miles of the grand trunk road in the Gobindpur subdivision, 42 miles of the Purūlia-Barākar road, and 36 miles of the Purūlia-Rānchī road. Of the District board roads 363 miles are metalled, the principal being those from Purūlia to Chaibāsa, Mānbāzār, and Bānkurā, and from Raghunāthpur to Rānīganj. The District board maintains six ferries on the more important roads.

Famine.

The undulating character of the surface and the consequent rapid drainage render Mānbhūm peculiarly liable to drought, and it suffered severely during the general famines of 1866, 1874, and 1897. The distress in 1866 was felt over almost the whole District. Rice rose to the excessively high price of $3\frac{1}{2}$ seers to the rupee in the month of August, and in the affected area as many as 33,296 persons, or 6·55 per cent. of the population, died from starvation and its indirect effects. In 1874 the north and north-east of the District suffered most. In addition to a cash expenditure of 2·7 lakhs, more than 8,000 tons of grain was distributed by Government, and thus the price of rice never exceeded the rate of 12 seers to the rupee. The famine of 1897 was felt over the greater part of the District, but was most intense in the Gobindpur subdivision. The price of grain was highest in July, when rice sold at 7 seers to the rupee. The total expenditure on relief works amounted to 2·8 lakhs, and Rs. 42,000 was spent in advances for village works. The aggregate number of persons relieved on works, expressed in terms of one day, was 1,311,569, and 1,456,105 persons received gratuitous relief.

Administration.

For administrative purposes the District is divided into two subdivisions, with head-quarters at PURŪLIA and GOBINDPUR. Subordinate to the Deputy-Commissioner at Purūlia is a staff of five Deputy-Magistrate-Collectors; the subdivisional officer of Gobindpur is assisted by a Sub-Deputy-Collector.

The chief civil court is that of the Judicial Commissioner of Chotā Nāgpur. For the disposal of civil work a Subordinate Judge and two Munsifs sit at Purūlia, and a Munsif each at Raghunāthpur and Gobindpur. The Munsif of Raghunāthpur also tries rent suits under Act X of 1859, and exercises the powers of a third-class magistrate. Deputy-Collectors try rent suits under Act X of 1859 at Purūlia and Gobindpur. The Deputy-Commissioner exercises special powers under section 34 of the Criminal Procedure Code. As Additional Sessions Judge of Chotā Nāgpur, the Sessions Judge of Bānkurā tries all

sessions cases and criminal appeals arising within Mānbhūm and Singhbhūm; for the disposal of sessions cases he sits at Purūlia, and for the hearing of appeals sometimes at Purūlia and sometimes at Bānkurā. Of late years Mānbhūm has been notorious for the number of dacoits it shelters; in 1905 more dacoities were committed than in any other Bengal District. These crimes are confined mainly to the coal-fields, and are the work of up-country criminals who congregate there.

At the time of the Permanent Settlement the smaller chiefs in Mānbhūm were considered to be independent landholders and were admitted to separate settlements. Succession to land follows the custom of primogeniture; there has thus been no subdivision of property, and in 1903–4 there were in all only 29 revenue-paying estates with a current demand of Rs. 84,000; of these all but two are permanently settled, the largest being Pānchet with a demand of Rs. 58,000. The Permanent Settlement was extended to the District at a time when it was unprepared for such a measure, and the assessment is therefore disproportionately light, amounting to only R. 0–1–1 per cultivated acre. Special tenures are the *ghātwāli* and other service tenures, maintenance grants to the younger members of a *zamīndār's* family, and *mānki* and *murāri* tenures, a survival of the aboriginal village system (*see* KOLHĀN). The *ghātwāls* hold a certain quantity of land on a quit-rent, as a remuneration for police duties which they are required to perform on behalf of Government. Other service tenures are those of the *jāgīrdārs* in Pānchet, who retain one-third or more of the produce of the villages included in their holdings; *goraiti* tenures, or grants made to the *gorait* or village messenger; and *lāyāli* grants made to *lāyas* or priests of the aboriginal deities. Petty service, or *chākrān*, grants with no specific name are often made to barbers, potters, washermen, smiths, and others performing menial services for their landlords; as a rule, they are given free of rent.

Maintenance tenures granted for the support of the younger members of a Rājā's or *zamīndār's* family are of two kinds, *khorposh* and *hikimāli*. The latter, which are confined to the Barābhūm and Mānbhūm *parganas*, are grants of land assigned for the maintenance of the *hikim* or second brother and the *kunwār* or third brother of the *zamīndār* for the time being. On the death of the *zamīndār*, the brothers of his successor take up the lands attached to the office of *hikim* or *kunwār*, and perform the services in consideration of which those lands are held. A *hikimāli* tenure is thus dependent on the life of the *zamīndār* and not on that of the tenure-holder. But each *zamīndār*, when he succeeds to the estate, is bound to make suitable provision in the form of ordinary *khorposh* grants for the *hikims* who have vacated the *hikimāli* grants derived from their relationship to his predecessor.

Such maintenance grants are held during the life of the grantees, and are liable to lapse at their death to the parent estate. The incidence of rental for the whole District is estimated at Rs. 1–12–3 per cultivated acre; but owing to the fact that land is seldom assessed on measurement, any statement of rates is only an approximation. In Barābhūm the generally accepted rates of rent payable by the cultivator to his landlord are Rs. 4–12–9 per acre of *bahāl* or low-lying rice-land; Rs. 3–9–7 per acre of *kānāli* or moderately high rice-land; Rs. 2–6–5 per acre of *baid* or high land; Rs. 1–3–2 per acre of *gorā* or the worst class of land. A substantial cultivating ryot pays about Rs. 2–2 for his *bāstu* or homestead land, a non-cultivating ryot Rs. 1–1, and a ryot of the poorer class about 8½ annas. Similar rates prevail in the other *parganas* in the south of the District, but in Pānchet and in other estates in the north they are from 50 to 100 per cent. higher.

The following table shows the collections of land revenue and total revenue (principal heads only), in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue .	83	82	80	84
Total revenue .	3,07	4,25	6,97	8,91

Outside the municipalities of PURŪLIA, JHALIDĀ, and RAGHUNĀTHPUR, local affairs are managed by the District board, with a subordinate local board at Gobindpur. In 1903–4 its income was Rs. 1,42,000, half of which was derived from rates; and the expenditure was Rs. 1,19,000, including Rs. 74,000 spent on public works and Rs. 32,000 on education.

The District contains 24 police stations or *thānas* and 3 outposts. In 1903 the force subordinate to the District Superintendent consisted of 3 inspectors, 36 sub-inspectors, 24 head constables, and 297 constables. In addition, there was a rural police force of 4,360 *chaukīdārs*, of whom 1,720 held service tenures, and 1,972 *ghātwāls* of different grades. The District jail at Purūlia has accommodation for 276 prisoners, and a subsidiary jail at Gobindpur for 32.

The District is very backward in respect of education, and in 1901 only 4.0 per cent. of the population (7·7 males and 0·3 females) could read and write. The number of pupils under instruction increased from 10,563 in 1883 to 15,578 in 1892–3 and to 20,535 in 1900–1. In 1903–4, 24,751 boys and 2,058 girls were at school, being respectively 25·2 and 2·1 per cent. of the children of school-going age. The number of educational institutions, public and private, in that year was 799, including 26 secondary, 761 primary, and 12 special schools. The expenditure on education was Rs. 1,28,000, of which Rs. 14,000 was met from Provincial funds, Rs. 32,000 from District funds, Rs. 600

from municipal funds, and Rs. 51,000 from fees. The chief educational institution is the Purūlia Government school.

In 1903 the District contained 8 dispensaries, of which 5 had accommodation for 64 in-patients. The cases of 41,000 out-patients and 641 in-patients were treated during the year, and 1,623 operations were performed. The expenditure was Rs. 12,600, of which Rs. 800 was met from Government contributions, Rs. 2,000 from local and Rs. 6,100 from municipal funds, and Rs. 5,300 from subscriptions. A leper asylum 2 miles south-west of Purūlia town is managed by the German Evangelical Lutheran Mission. Its grounds cover about 400 acres and it has 509 inmates, including 83 children. Untainted children of leprous parents are received in a special home at some distance from the asylum.

Vaccination is compulsory only in municipal areas. In 1903–4 the number of persons successfully vaccinated was 39,000, or 30·7 per 1,000 of the population.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. xvii (1877); F. B. Bradley-Birt, *Chotā Nāgpur* (1903).]

Manchar.—Village in the Khed *tāluka* of Poona District, Bombay, situated in 19° N. and 73° 57′ E., on the right bank of the Ghod, about 12 miles north of Khed town. Population (1901), 5,300. The place is surrounded by a wall and belonged to Holkar till 1868–9, when it became British by exchange. To the west, beyond a watercourse, is a fine Hemādpanti reservoir about 25 yards square, with two flights of steps leading to the water. Except the west wall, which has a small niche with carved sideposts and sculptured foliage, the walls of the reservoir are plain. Within the niche is a much-worn inscription. Manchar appears to have been a Musalmān town of some importance, and has a small mosque at its south-west entrance. The mosque is entered by a fine single arch, surmounted by a projecting and bracketed cornice with a small minaret at each of the four corners. The village contains a school with 176 boys and 10 girls.

Manchhar.—Lake in the Sehwān *tāluka* of Lārkāna District, Sind, Bombay, lying between 26° 22′ and 26° 28′ N. and 67° 37′ and 67° 47′ E. It is formed by the expansion of the Western Nāra and the Aral streams, and is fed by hill-torrents. The first flows into it from the north, and the latter from the Indus westward at a distance of about 12 miles; but the supply from the Nāra is trifling in quantity when compared with that from the Aral. It is, however, this latter stream which affords a means of discharge for the redundant waters of the lake. During the period of inundation the Manchhar may be estimated at from 15 to 20 miles in length, with a breadth of about 10 miles; but when the water is low, this area is greatly contracted, and is then probably not more than 10 miles in length. The space

left uncovered by the receding water is sown with grain, especially wheat, yielding magnificent crops.

Although shallow at the sides, the lake has a considerable depth of water in the middle; and so great is the quantity of fine fish that hundreds of men and boats are employed. The fish are taken chiefly by spearing, but also in nets. In the season when the lotus is in blossom the lake presents a very beautiful appearance, as its surface, farther than the eye can reach, is covered with an unbroken succession of flowers and leaves.

The fisheries of the lake, which are let out on contract, yielded an average annual revenue of Rs. 5,091 during the five years ending 1905–6. The principal fish are: the *dambhro* (or *chelri*), a reddish-coloured fish often attaining an enormous size, and ranking, according to native taste, next to the *palla* in excellence; the *morāko*; the *gandan*, a long, sharp, and very bony fish, of a silver colour, in length from 3 to 5 feet; the *shakār*, the 'murrel' of the Deccan; the *jerkho* or fresh-water shark, the largest fish in Sind; *goj* and *lor*, or eels; *khaggo*, or catfish; the *popri*, the *dālu*, the *theli*; *gangat*, or prawns; the *danur*, and the *singāri*.

Mandā.—Village in the Naogaon subdivision of Rājshāhi District, Eastern Bengal and Assam, situated in 24° 46′ N. and 88° 39′ E., on the west bank of the Atrai river. Population (1901), 356. It is the site of an annual fair held in March or April on the occasion of the Hindu festival, Srī Rām Nabamī, in honour of Rām (the seventh incarnation of Vishnu). The fair is attended by about 25,000 people from all parts of the District.

Mandal.—Town in the Viramgām *tāluka* of Ahmadābād District, Bombay, situated in 23° 17′ N. and 71° 55′ E., 15 miles north-west of Viramgām station on the Bombay, Baroda, and Central India Railway. Population (1901), 5,091. The municipality, established in 1889, had an average income during the decade ending 1901 of Rs. 5,000. The income in 1903–4 was Rs. 5,230. The town contains some mosques of archaeological interest: notably, the Jāma Masjid, the Saiyid Masjid, the Kāzī Masjid, and the Ganjni Masjid. It also contains a dispensary, and three boys' and one girls' school, attended respectively by 255 and 54 pupils.

Mandalay Division.—North-eastern Division of Upper Burma, lying between 21° 42′ and 27° 20′ N. and 95° 6′ and 98° 20′ E., with an area of 29,373 square miles. It is composed of five Districts (all abutting on the Irrawaddy): Mandalay and the Ruby Mines on the east of the river, and Kathā, Bhamo, and Myitkyinā astride of it. On the north it is bounded by unadministered territory; on the east by China and the Northern Shan States; on the south by the Kyaukse District of the Meiktila Division; and on the west by the Sagaing

Division, from which it is separated by the Irrawaddy and the watershed severing the basins of the Irrawaddy and the Chindwin. The head-quarters are at MANDALAY CITY in the extreme south of the Division; but all the District head-quarters, with the exception of Mogok, are readily accessible by rail and river. The Commissioner exercises a nominal control over the Hkamti Long (Shan) States on the upper reaches of the Malikha. The population of the Division was returned at 592,625 in 1891 and 777,338 in 1901. The earlier Census, however, excluded a large part of Kathā District, then forming the Wuntho State, and also portions of Bhamo and Myitkyinā Districts. The distribution of the population in 1901 is shown in the table below:—

District.	Area in square miles.	Population, 1901.	Land revenue and *thathameda*, 1903-4, in thousands of rupees.
Mandalay . .	2,117	366,507	8,42
Bhamo . . .	4,146	79,515	1,31
Myitkyinā . .	10,640	67,399	93
Kathā . . .	6,994	176,223	5,34
Ruby Mines (including Möngmit) .	5,476	87,694	90*
Total	29,373	777,338	16,90

* Excluding revenue of Möngmit.

The Division contains seven towns — MANDALAY (population, 183,816), AMARAPURA (9,103), MAYMYO (6,223), BHAMO (10,734), and MOGOK, KATHĀ, and MYITKYINĀ; and there are 5,413 villages. Mandalay, Mogok, and Bhamo are important industrial and trade centres. Burmans predominate largely, numbering 451,161 in 1901. They form almost the whole population of Mandalay District, and the larger part of that of Kathā, and are well represented in the Ruby Mines and Bhamo, but are comparatively scarce in Myitkyinā. The Shans numbered 110,728 in 1901, distributed over all the five Districts, but nowhere in the majority. In Mandalay District they are confined to the hilly Maymyo township. The number of Kachins in 1901 was 87,790. They form the greater part of the population of Myitkyinā District, are the prevalent race in Bhamo, and are common in Kathā and the Ruby Mines. A portion of the north-western area of Kathā is peopled by the Kadus, who numbered 34,521 in 1901. Danus to the number of 6,276 inhabit the hills in Mandalay District. Chinamen are numerous in all the Districts excepting Kathā, and aggregated 9,463 at the last Census. Natives of India are distributed all over the Division, for the most part in or near the towns and District head-quarters. They include 25,391 Musalmāns, 21,894 Hindus, and

2,149 Sikhs. Of the indigenous races, the Burmans and Shans profess Buddhism, which had 634,000 adherents in 1901, while the Kachins for the most part are to be reckoned among the Animists, who numbered about 88,000. Christians numbered 5,663.

Mandalay District (Burmese, *Mandale*).—District of the Mandalay Division of Upper Burma, lying between 21° 42′ and 22° 46′ N. and 95° 54′ and 96° 46′ E., with an area of 2,117 square miles. It is bounded on the north by the Ruby Mines District; on the south by the State of Lawksawk and by Kyaukse and Sagaing Districts; on the east by the State of Hsīpaw; and on the west by the Irrawaddy, which divides it from Sagaing and Shwebo Districts.

Physical aspects.

The main feature of the District is the wide plain, about 700 square miles in extent, which occupies about one-third of the area, spreading from the Irrawaddy eastwards to the foot of the Shan plateau, and gradually increasing in width from north to south. This wedge-shaped level slopes both southward and westward, and is, with the exception of portions that are irrigated by canals or tanks, liable to drought by reason of the uncertainty of the rainfall. The area flooded by the rivers during the rains is about 150 square miles. To the north and east of the plain are the hills forming the western edge of the Shan plateau, which run for the most part in broken parallels north and south. Those in the north, however, taking off from the Ruby Mines mountain group, end abruptly north of the Sagyin hill, and cover about one-half of the northernmost township. The highest points in this system are from 2,000 to 3,600 feet above the sea. The elevated ground to the east takes in the whole of the Maymyo subdivision. It rises very steeply from the plain, and develops into a picturesque plateau, 3,000 feet high, bounded on the east by a deep steep-sided gorge. Conspicuous hills in this plateau tower to a height of 4,000 and 4,700 feet. From the level plain in the Irrawaddy valley rise isolated limestone hills, of which the best known are the Sagyin hill (800 feet), famous for its alabaster quarries; Mandalay hill (954 feet), at the north-east corner of the city, of which it commands a noble view; and the Yankin hill, due east of the city, interesting for its images of fish, carved in a natural cave, which are worshipped in times of scarcity of rain.

The main rivers are the Irrawaddy, the Myitnge, and the Madaya. The two latter are tributaries of the former, which skirts the western boundary of the District throughout its entire length (75 miles), and is studded with rich alluvial islands, whose movements from one side of the channel to the other give considerable trouble to the officials concerned in the administration of the Districts abutting on the stream. The Myitnge (or Doktawaddy), known as the Nam Tu by the Shans,

forms part of the eastern and practically the whole of the southern boundary of the District, sweeping round in a narrow cañon from south to north-west, and emerging from the hills at the foot of a striking bluff, about 2,000 feet high, locally known as Kywetnapa, or 'rat's snout.' It is navigable only to the foot of the hills, its course above being full of rapids and falls. The Madaya river, known by the Shans as the Nam Pi, and locally as the Chaungmagyi, rises in the Shan States and flows at first southwards, forming part of the eastern boundary of the District, after which it turns westwards, and joins the Irrawaddy about 25 miles above Mandalay. Close to its debouchure from the hills are the head-works of the new MANDALAY CANAL, which distributes its waters over the eastern part of the plain almost to the Myitnge river.

Of lakes proper there is none, though several large areas are inundated to a considerable depth in the rains, the chief being the Aungbinle lake east of Mandalay, the Nanda lake 21 miles north-north-east of the city, the Shwepyi in the north of the District, and the Taungthaman close to Amarapura. The Mandalay Canal is, however, fast converting the first two into paddy-fields. The last two are lagoons fed from the Irrawaddy, which are dammed for fishing and cultivation when the river falls.

The plain is to a great extent covered with alluvial deposit from the Irrawaddy. The isolated hills are of crystalline limestone, belonging to the period of Mogok gneiss. In the Sagyin Hills rubies are found in the débris resulting from the denudation of the limestone. The hilly tract, the edge of the Shan plateau, is composed of palaeozoic rocks, probably faulted down against the crystalline limestone. A fringe of Devonian limestone extends along the outer edge of the plateau, followed by a zone of Silurian sandstone, shales, and limestones, which occupy most of the broken country below its crest. The Silurians rest unconformably upon a series of quartzites and slaty shales which are probably of Cambrian age. Near Zibingyi (on the Lashio railway), a narrow band of black shaly limestone is found at the base of the Devonian limestone, containing graptolites and fossils of Upper Silurian age. The surface of the plateau extending from Zibingyi to beyond Maymyo is covered with Devonian limestones, the denudation of which has exposed the Silurian rocks beneath in the hilly country north of Maymyo. The shales of the Lower Silurian formation are highly fossiliferous, containing large numbers of detached plates of cystideans and fragments of crinoid stems.

The forest produce is described below. The Maymyo plateau is extraordinarily productive of flora both indigenous and foreign. Many kinds of orchids and lilies grow wild; English blooms of every description flourish; and the *padauk* (*Pterocarpus indicus*), the *ingyin*

(*Pentacme siamensis*), the *saga-wa* and *saga-sein* (*Michelia Champaca*), the *gangaw* (*Mesua ferrea*), and the *sabe* are all met with.

The fauna does not greatly differ from that of Upper Burma generally. The elephant, the bison, and the *tsine* or *hsaing* (*Bos sondaicus*) are met with in the hilly tracts in the north and east. The barking-deer (*gyi*) is ubiquitous, and the *sāmbar* and hog deer (*daye*) are fairly common. The serow (Burmese, *tawseik* or 'wild goat') is occasionally met with in the hills. Tigers and leopards are common both in the hills and on the plain. Wild hog cause a good deal of destruction to the crops at the foot of the slopes, and two species of black bear (Malay and Himālayan) frequent the hills of the Maymyo subdivision.

The climate is dry and healthy. From April to August strong winds prevail. In the plains the thermometer rises frequently in the hot season to 105° or 107° in the shade, and the minimum, in December, is about 55°. Occasionally temperatures of 112° have been recorded in April. In the hills the range is from 32° to 90°. The Maymyo plateau is, except at the beginning and end of the rains, very healthy, and is at all seasons temperate. The average minimum at Maymyo in December is 38° and the maximum in May is 86°, though six degrees of frost and temperatures exceeding 90° have been recorded.

The rainfall in the plains is meagre, and somewhat capricious. It is least in the south, where it averages 30 inches, increasing to about 40 inches in the extreme north. In the hills it is considerably heavier, with a mean of about 58 inches, while as much as 75 inches have been recorded. In November, 1899, an extraordinary fall of rain caused great damage, breaching the railway and flooding a large part of Mandalay city; several bridges were swept away, and a village was destroyed with a loss of seven lives. Such storms are frequent at the beginning and end of the rains, though as a rule the havoc they work is inconsiderable.

History.

The District has from very early times been a part of the kingdom of Burma. The history of the foundation of MANDALAY CITY is contained in a separate article, and the account of the negotiations of the British Government with king Thībaw at Mandalay is given in the article on BURMA. We are concerned here with the settling of the District after the fall of Mandalay in November, 1885. Though about 1,000 troops were quartered in Mandalay itself after the annexation, the District was for some time overrun and practically administered by three or four dacoit leaders, who gave themselves out as acting for the Myingun prince, and who were kept together by a relative of his. Dacoities continued throughout 1886, but in 1887 their perpetrators were hunted down. In August, 1887, a rising took place in the Maymyo sub-

division under the Setkya pretender, and the Assistant Commissioner at Maymyo was killed. Two dacoit leaders, Nga To and Nga Yaing, at that time held the islands of the Irrawaddy and made raids right up to the walls of Mandalay; and a third, known as Nga Zeya, occupied the hilly country in the north and north-east of the District. However, these leaders were either driven out of the country or executed in 1888 and 1889, and their gangs were broken up. The last dacoit band, led by Kyaw Zaw, a lieutenant of the Setkya pretender, was dispersed in 1889–90. It had till then harried the Maymyo subdivision and the neighbouring hilly tracts of Kyaukse District.

Pagodas of all sizes are dotted over the plain, crowning the low limestone hills that rise out of it. Some of the most interesting of these lie in or close to Mandalay itself, and are described under MANDALAY CITY. In the Madaya township are the Sutaungbyi and Sutaungya pagodas. The former was built in the eleventh century by king Anawrata, on his return from China, to commemorate his victories there. The latter was erected by king Mindon in 1874 for the use of the royal family, it is said, lest any among them who aspired to the throne should obtain the fulfilment of their prayers which the more venerable shrine was believed to ensure. At Tawbu in the same township is an old pagoda where a great festival is held in February. An impressive sight is the Shwegyetyet group of shrines, about 600 years old, on the bank of the river at Amarapura. Large crowds assemble annually to witness the feeding of the fish which come up in shoals to be fed at the great Tabaung feast of the Shwezayan pagoda on the Myitnge river, built by Shinmunhla, the queen of Anawrata. The fish are so tame that they are called up by the voice and are fed by hand, pious worshippers decorating their heads with gold-leaf. In the north of the District, 8 miles east of Singu, is the Shwemale pagoda. According to an inscription, it was built about 1,000 years ago by king Yamaingsithu, who gave up certain lands to be worked by *payakyuns* (pagoda slaves) and their descendants, the revenue to go to repairs of the pagoda. The receipts are at present spent for the most part on festivals, as may be inferred from the neglected appearance of the shrine.

Population.

Little is known regarding the population under native rule, but it is clear that it was smaller in 1891 than before annexation. In 1891 the inhabitants numbered 375,055, of whom 188,815 belonged to Mandalay city. By 1901 the total had fallen to 366,507, the residents of the city having dwindled to 183,816.

The chief statistics of area and population for 1901 are given in the table on the next page.

The principal town is MANDALAY, the head-quarters, and formerly

the capital of independent Burma. The attractions of the Burmese court, and the comparative security against dacoities that its presence ensured, were doubtless responsible in pre-annexation days for the existence of a larger population than the District was able economically to support. The waning of the former and the extension of the latter throughout Burma have had the effect of drawing off the surplus not only from the city, but also from the adjacent townships of Amarapura and Patheingyi. The census figures show that the flow of emigrants has been mostly towards Ma-ubin, Pyapon, and Hanthawaddy Districts, and to Rangoon, which together contain nearly 30,000 persons born in and about Mandalay. The rural population in 1901 was 172,300, rather less than half the total, and the average density in the rural areas was 82 persons per square mile. Buddhists predominate; but in 1901 there were 20,300 Musalmāns, 13,400 Hindus, and 1,000 Sikhs, mostly residents of the city. Burmese is the language of 91 per cent. of the people.

Township.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Mandalay City .	25	1	...	183,816	7,353	− 3	64,938
Amarapura .	85	1	227	43,884	516	− 13	9,694
Patheingyi . .	213	...	152	28,546	134	− 10	3,857
Madaya . .	321	...	217	53,212	166	+ 4	13,443
Singu . .	712	...	146	35,670	50	− 4	10,251
Pyintha . .	190	...	54	4,295	23	− 13	543
Maymyo . .	396	1	101	13,730	35	+ 72	2,230
Wetwin . .	175	...	37	3,354	19	+ 19	357
District total	2,117	3	934	366,507	173	− 2	105,313

In 1901 Burmans numbered 306,300; Shans (for the most part in the hilly Maymyo subdivision), 5,400; and Danus, a mixture of the last two races, 6,300. Natives of India are numerous. There were 7,900 Indian immigrants in 1891, and this number had increased in 1901 to 15,400, of whom 12,000 lived in Mandalay city. The oldest foreign settlers are the Kathes and Ponnas, a large number of whom are descended from Manipuri prisoners of war. They now number nearly 9,000, and are mostly domiciled in the city and its environs, though the Ponnas have their own villages in the Amarapura township. The percentage of Indian women is exceptionally high, a fact which points to a large permanent Indian colony. Chinamen, for the most part traders and artisans in Mandalay and Maymyo, number 1,600. The European community in 1901 numbered 2,200 (composed largely of the British troops in cantonments). The

number of persons directly dependent on agriculture in 1901 was 84,698, or less than half the rural population and a quarter of the total. More than 37,000 persons living in the hills in the north and east are dependent on *taungya* (shifting) cultivation alone.

Christians in 1901 numbered 4,389, of whom 2,062 were natives (mostly Madrasis). Mandalay city is the see of a Roman Catholic bishop, under whom nine priests are at work in the District, but rather among the Indian Christians than the indigenous folk. The mission possesses thriving schools and an important asylum for lepers. The American Baptists have three pastors at work among the Burmans and natives of India. The Anglican Church is represented by the S.P.G. Mission in Mandalay city, where also the Wesleyan Mission has its head-quarters, and controls a leper asylum.

Agriculture.

Owing to the scanty rainfall, the greater part of the plain is at present uncultivable. Agricultural conditions have, however, been improved by the opening of the new Mandalay Canal, which should eventually result in a considerable expansion of cultivation. The settlement of 1892–3 divided the District into five soil tracts. The first is composed of a thick absorptive clay, commanded by the Shwetachaung Canal, taking off from the Madaya river. The second is a stiff paddy clay or cotton soil, formerly irrigated by the Aungbinle tank, but now by distributaries from the Mandalay Canal. The third is a free and friable kind of sandy loam, and in some places a stiff paddy clay or cotton soil, formerly commanded by the Shwelaung Canal, the place of which has practically been taken by the Mandalay Canal. The fourth is alluvial land inundated during the rains. The fifth consists of rough broken land, composed largely of cotton soil with patches of sandy loam, where cultivation depends entirely upon a timely rainfall. There is very little variety in the systems of cultivation; rice is the chief crop, and the plough and harrow are the main agricultural implements. *Taungya*, or shifting, cultivation prevails in the Maymyo subdivision, though here too a certain amount of irrigated rice is grown in terraced rice-fields in the bottoms of the valleys.

About three-fourths of the cultivated land is state land (chiefly *ahmudansa*, or land held on a service tenure). The non-state lands are mostly lands acquired in the latter days of the monarchy by purchase, or presented to junior members of the royal family and others. The table on the next page exhibits the main agricultural statistics for 1903–4, in square miles.

Exclusive of the Maymyo subdivision, for which no statistics exist, 273 square miles were under cultivation in 1890–1, 196 square miles in 1900–1, and 246 square miles in 1903–4. The increase in the

cultivation and a diversion of about 9,000 acres from 'dry crops' to rice are due to the opening of the Mandalay Canal, which has also reduced the area of current fallows by nearly 7,000 acres. The area under rice had risen in 1903-4 to 136 square miles, of which 98 were irrigated. Of the total rice crop, about 27 square miles were *mayin* or hot-season rice. A large share of this is twice-cropped irrigated land in the Shwetachaung Canal tract. Pulse of various kinds, *pegyi* being the most popular, covers 56 square miles, mainly in the northern or Madaya subdivision. Gram and wheat each occupy about 3,500 acres, chiefly in the Patheingyi township. The areas under both these crops, as well as those under various fodder crops and sesamum, the last covering 14 square miles, have all decreased of late, owing to the land being converted into irrigated paddy-fields. Tobacco is cultivated to the extent of about 3,500 acres on the alluvial deposits in the Irrawaddy islands. Onions, tomatoes, and chillies are grown to a smaller extent. The area under garden cultivation is 16 square miles, including mango groves, nearly 2,000 acres of which clothe the bank of the Myitnge river and areas in the Amarapura township, and 4,600 acres of plantain groves. There are very valuable gardens at Madaya, watered by the Shwetachaung Canal, in which large quantities of coco-nuts, plantains, betel-vines, pineapples, mangoes, papayas, and custard-apples are grown. Grapes have been tried in Amarapura, and strawberries do well in Maymyo. A certain amount of homestead garden cultivation is attached to every Shan village in the Maymyo subdivision. There is a considerable amount of *bobabaing* or non-state land in the District. In all, 52 estates exceed 100 acres in extent, and one has an area of 670 acres. The average size of a rice or mixed crop holding is $5\frac{1}{2}$ acres, that of other holdings is 2 acres.

Township.	Total area.	Cultivated.	Irrigated	Forests.
Mandalay City .	25	7	2	805
Amarapura .	85	43	12	
Patheingyi .	213	65	29	
Madaya . .	321	81	39	
Singu . .	712	50	18	
Pyintha . .	190	...	...	
Maymyo . .	396	...	...	
Wetwin . .	175	...	...	
Total	2,117	246	100	805

The cultivation of tobacco and wheat from imported seed is gradually spreading. Indian wheat and Havana and Virginia tobacco seed have given satisfactory results, producing better crops than the indigenous varieties. The local cultivators seldom avail themselves

of the benefits of the Land Improvement and Agriculturists' Loans Acts, preferring to obtain advances from money-lenders, who are less particular as to security, and are quite content with the production of a land revenue receipt.

There are no local breeds of cattle or ponies. Bullocks are used for ploughing very much more commonly than buffaloes. Ponies are brought from the Shan States, as well as from Pakokku and other Districts down the river. The area of reserved grazing ground exceeds 1,000 acres, and the large uncultivated areas and broad *kazins* or field embankments will render further reservation unnecessary for some time to come.

At the time of annexation the District contained several canals of considerable size. The Shwelaung Canal took off from the Madaya river at Zehaung, close to the headworks of the new MANDALAY CANAL, and, crossing the District diagonally for about 30 miles, joined the Irrawaddy at Amarapura. On the foundation of Mandalay, it was directed so as to supply the city moat, but it was never very reliable, and failed absolutely in 1880. The Shwetachaung Canal was 26 miles in length, taking off from the Madaya stream near Madaya, and running south to join the Irrawaddy below Mandalay. From the dam just above Mandalay (below which the canal is empty) to its head it is still navigable by country boats. It is a valuable source of supply, irrigating about 50 square miles. Between these two is the Dinga stream, supplying the Nanda lake north of Mandalay. The present Mandalay Canal takes the place of the Shwelaung Canal and of the Aungbinle and Nanda lakes, which are being converted into paddy-fields. The area annually irrigable by this work is estimated at 80,000 acres, and that irrigable by the Shwetachaung Canal at 28,000 acres; the area actually irrigated in 1903-4 by the former was 30,000 acres, that by the latter 24,000 acres. In the same year 2,300 acres were irrigated from wells, and 1,500 acres from tanks. The total irrigated area of the District in 1903-4 was 100 square miles. More than one-third of this total lies in the Madaya, and more than a quarter in the Patheingyi township.

The fisheries are mainly situated near the Irrawaddy, their success depending upon the nature of the rise and fall of the river. The season begins in October, when the river falls and the outlets of the lagoons and connecting channels are closed with *yins* (bamboo screens). In the Amarapura township the most important fishery is the Taungthaman lake, which brings in about Rs. 8,000 annually. There are two valuable fisheries in the Madaya township, the larger, the Kyi-in fishery, yielding an annual revenue of about Rs. 9,500. In the Singu township, where the river spreads out over a considerable area in lagoons and backwaters, seven

Fisheries.

large fisheries realize more than Rs. 5,000 each. In 1903-4 the fisheries yielded a total revenue of 1·2 lakhs.

Forests.

The forests are of various types, depending on climatic conditions, which vary considerably in different parts. In the plains the jungle growth consists of open scrub, increasing in height and density as the rainfall increases. The principal species here are *zi* (*Zizyphus Jujuba*) and *kan* (*Carissa Carandas*), overtopped here and there by a *tanaung* (*Acacia leucophlaea*), *nabe* (*Odina Wodier*), or *sit* (*Albizzia procera*). On the lower slopes, facing the plain, the forest is of the type known as 'dry,' in which the principal species are *sha* (*Acacia Catechu*), *dahat* (*Tectona Hamiltoniana*), *than* (*Terminalia Oliveri*), *ingyin* (*Pentacme siamensis*), and *myinwa* (*Dendrocalamus strictus*), or the common bamboo. With increasing rainfall this gradually merges into mixed forest in which teak, *padauk* (*Pterocarpus indicus*), and *pyingado* (*Xylia dolabriformis*) are found. In the north are mixed forests with belts of *indaing* on laterite soil. In these tracts the principal species, besides teak, *padauk*, *pyingado*, and *in* (*Dipterocarpus tuberculatus*), are *thitya* (*Shorea obtusa*) and *thitsī* (*Melanorrhoea usitata*), with various species of *Sterculia* and bamboo. Oaks and chestnuts begin to appear at an elevation of about 2,800 feet, and on the Maymyo plateau these are among the most common species. A small patch of pine forest (*Pinus Khasya*) exists on a hill about 12 miles east of Maymyo. Besides teak, the trees yielding the most valuable timber are *padauk* and *pyingado*; *thitya*, *ingyin*, and *in* are also employed in building. The other trees of economic importance are the *sha*, yielding the cutch of commerce; the *thitsī*, producing a black varnish; and the various species of *Sterculia* (Burmese, *shaw*), the bark of which yields a strong fibre.

The area of 'reserved' forest in 1903-4 was 335 square miles, and that of 'unclassed' forest 470 square miles, principally in the Maymyo subdivision. The only plantations that have been formed are those in the Singu and Lower Madaya Reserves, in which 61 acres had been planted up to the end of 1901 on the teak *taungya* system. The forest revenue in 1903-4 amounted to Rs. 13,000.

The Sagyin Hills near Madaya produce spinels and rubies, plumbago, graphite, and alabaster. Copperas is met with at Kainggyithamin and Yegyi, and lead at Onhlut. Mica has been found at Shwegyin, 9 miles north of Singu, and an inferior kind of coal, of little use for fuel, has been dug near Wetwin on the Mandalay-Lashio railway.

Trade and communications.

Most of the arts and manufactures of the District are carried on in Mandalay and are described in the city article. In Amarapura township the chief industry is that of silk-weaving, in which whole villages are often occupied. The beautiful *acheik tameins* (skirts) come from the Kathe

(Manipuri) villages of this township. A little cotton is woven in the rural areas, but only for local use. An important manufacture of Amarapura is that of *kammawa* writing slips. These measure 18 inches by 2, and are made of four folds of chintz stuck together with black *thitsī* and overlaid with vermilion. They form the material on which *kammawa*, or Buddhist religious texts, are written in Pāli.

About three-fourths of the total population being non-agricultural, a large internal trade is carried on between the city of Mandalay and the District. The through trade is also considerable, imports from the Shan States being shipped for ports down the river in the steamers of the Irrawaddy Flotilla Company, together with the main products of the District, such as hides and skins, grain, and silk goods. These, and the rubies, stick-lac, rubber, and cutch that come from up country, are exchanged for imports, mostly manufactured goods from Rangoon. The latter include hardware, metals, cotton and woollen piece-goods, and general stores from Europe; silks and dyes from Japan and China; and *ngapi* and salted fish from Lower Burma. These are brought by rail and river from Rangoon, and are to some extent re-exported to the Shan States and Western China. The total value of the imports from the Northern Shan States amounted in 1903–4 to $6\frac{1}{2}$ lakhs by caravan and $21\frac{1}{2}$ lakhs by rail. By far the most important commodity brought in is pickled tea (valued at 21 lakhs) from the Hsīpaw and Tawngpeng hills. The exports to the Northern Shan States were valued in 1903–4 at $5\frac{3}{4}$ lakhs by caravan and $22\frac{1}{2}$ lakhs by rail. They included cotton piece-goods ($7\frac{1}{2}$ lakhs), dried fish ($1\frac{3}{4}$ lakhs), cotton twist and yarn ($2\frac{1}{2}$ lakhs), salt (2 lakhs), and petroleum ($1\frac{1}{3}$ lakhs). Maymyo is a registering station for trade to and from both the Northern and Southern Shan States. The imports from the Southern States in 1903–4 were valued at a lakh, and the exports at a lakh and a half. Trade with Western China along the Maymyo route is registered, but it is very small and shows no signs of increasing.

The main railway from Rangoon enters the District 10 miles south of Mandalay city on the bank of the Myitnge, which it crosses by a fine girder-bridge, and passes through the Amarapura township to the terminus in the city. From Myohaung, 3 miles south of the terminus, there are two branches. One runs westwards through Amarapura to a point on the bank of the Irrawaddy 12 miles from Mandalay, where a ferry connects it with the Sagaing terminus of the line to Myitkyinā. The other turns abruptly eastwards, and after a level run of 16 miles across the plain climbs up the Maymyo plateau, and, passing Maymyo, leaves the District near Wetwin about 55 miles from Mandalay. The city will probably before long be connected with Madaya by a light railway.

The District is fairly well provided with roads. Of these, the most important outside municipal limits are the Mandalay-Lashio road, metalled in part, passing through Maymyo and quitting the District at Wetwin; the Mandalay-Madaya road along the Shwetachaung Canal embankment; and the Mandalay-Lamaing road, the two last being each about 16 miles long. These three are maintained by the Public Works department. The District fund is responsible for the upkeep of a considerable number of inter-village tracks, which include the Madaya-Singu road (32 miles), continuing for another 19 miles to the Ruby Mines District boundary, and 3 miles of the metalled road from Mandalay to Amarapura. There is an electric tramway in Mandalay city.

The Irrawaddy is navigable at all seasons by large river steamers, while country boats navigate the Madaya and Myitnge rivers all the year round, the former up to Sagabin, about 20 miles, and the latter for 16 miles, and in the rains for another 30. The Shwetachaung Canal is navigable from the dam just above Mandalay to its head. Government launches ply constantly between Mandalay and other stations on the river; and the Irrawaddy Flotilla Company runs, in addition to some cargo-boats, one mail steamer a week to Bhamo, two to Thabeikkyin (for the Ruby Mines), and two down the river to Rangoon, calling at the several river-side stations, and one daily to Myingyan. The tolls levied on the Shwetachaung Canal and the six ferries that the District contains bring in respectively Rs. 6,000 and Rs. 8,000 a year.

Administration.

The District is divided into five subdivisions: the eastern and western subdivisions of MANDALAY CITY, the former including the cantonment; the Amarapura subdivision in the south-west, comprising the AMARAPURA and PATHEINGYI townships; the Madaya subdivision in the north, comprising the MADAYA and SINGU townships; and the Maymyo subdivision in the south-east, comprising the PYINTHA, MAYMYO, and WETWIN townships. The subdivisions and townships are under the usual executive officers. The three township officers in the Maymyo subdivision, however, are little more than *myothugyis*, and the *myo-oks* at Wetwin and Pyintha have third-class powers, but cannot take cognizance of cases and never try any. There were 449 village headmen in 1903. The District falls within three Public Works divisions. The greater part forms a portion of the Mandalay division, with head-quarters at Mandalay city. Maymyo and its environs form, with the Lashio subdivision, the Maymyo division under an Executive Engineer at Maymyo, and the Mandalay Canal constitutes a third charge. There are two Deputy-Conservators of Forests, one in charge of the dépôt division at Mandalay and one at Maymyo, who in addition to the

Mandalay forests has charge of the forests in Kyaukse, Meiktila, and Myingyan Districts, and in the Northern Shan States. At the port of Mandalay are two officers of the Royal Indian Marine, one being Marine Transport officer for Upper Burma, the other the Superintending Engineer for Government vessels and launches.

Mandalay is the head-quarters of the Judicial Commissioner, Upper Burma, as well as of the Commissioner of Mandalay, who is Sessions Judge. There is a whole-time District Judge, who is also additional Sessions Judge of the Mandalay Division and Judge of the Mandalay Small Cause Court. In criminal work the Deputy-Commissioner is assisted by the head-quarters Assistant Commissioner (senior magistrate). Violent crime is most prevalent in the Amarapura subdivision, and theft of stray cattle is common in Maymyo. On the whole, however, the crime of the District presents no special features.

Under native rule the District was divided administratively into eight parts, one comprising the city and one the islands in the Irrawaddy, while the rest were under salaried officials called *ne-oks*. The actual collection of revenue was done by the *myothugyis* and subordinate *thugyis*, who were paid by a 10 per cent. commission on the revenue collected, and whose office was as a rule hereditary. Appeals lay first to the *Akundaw Tana* (revenue court), and second appeals were allowed to the *Hlutdaw* (high court); but in cases relating to royal lands appeals lay to the *Leyondaw* (land court), and thence to the *Hlutdaw*. *Thathameda*, at the average rate of Rs. 10 a household, was assessed by *thamadis*, elders of the village specially appointed for the purpose, but not in the city itself, where instead of the *thathameda*, imposts were levied on goods sold. No land revenue was collected over the greater part of the District on *bobabaing* or non-state lands, unless they were irrigated, in which case a tax of Rs. 2 per *pe* (1·75 acres) was levied. On state lands a rate theoretically equivalent to one-fourth of the gross produce was assessed, but in practice the amount was fixed by custom.

Three attempts at a regular settlement were made in the District soon after annexation. The first two were confined to limited tracts; but in 1891, after a cadastral survey had been completed, a regular settlement of the plain was undertaken. The rates proposed in 1893 were crop rates fixed at one-eighth of the gross produce on state land, and two-thirds of that rate on non-state land. These proposals were, however, revised, and in 1896 new rates on state land were introduced as follows: for *kaukkyi* rice, Rs. 2 to Rs. 7–6 per acre; for *mayin* (or hot-season) rice, Rs. 2–4 to Rs. 4 per acre. Gardens paid from Rs. 5 to Rs. 25; miscellaneous crops on islands and alluvial lands, Rs. 2–8 to Rs. 7–8; and *ya*, or upland holdings, Rs. 1–8 to Rs. 4 per acre. These changes brought in a revenue of 3 lakhs in

1897–8, as compared with $1\frac{1}{2}$ lakhs realized in the year before their introduction. In 1899–1900 rates were levied on non-state land, the old water rate being abolished, while irrigated lands paid seven-eighths of the state land rate and non-irrigated three-fourths; at the same time the *thathameda* rate was readjusted. The result was a slight increase of revenue. Since 1901 these rates have been resanctioned from year to year, and are still in force, except in the new Mandalay Canal tract, where tentative land revenue and water rates came into force in 1903–4. The rates, however, still require readjustment, especially in the Shwetachaung tract, and settlement operations are now being carried out with a view to their revision. No land revenue is collected in the three townships of the Maymyo subdivision.

The table below shows, in thousands of rupees, the fluctuations in the land revenue and total revenue since 1890–1. At present an important item of receipt is *thathameda*, which amounted to Rs. 2,59,600 in 1890–1, Rs. 2,59,400 in 1900–1, and Rs. 2,78,000 in 1903–4.

	1890–1.	1900–1.	1903–4.
Land revenue . .	1,77	4,17	5,64*
Total revenue . .	6,54	13,14	15,21

* Inclusive of Rs. 12,000 collected in Mandalay city.

The District fund, administered by the Deputy-Commissioner for the provision of various local needs, had an income of Rs. 42,600 in 1903–4. The chief item of expenditure was public works (Rs. 40,000). MANDALAY CITY is the only municipality, but Maymyo is administered by a town committee.

The District garrison, which is divided between Mandalay and Maymyo, consists of a British battalion, a Gurkha battalion, and two Punjābi regiments, a Native mountain battery, and a transport column. The head-quarters of the Burma division, formerly at Rangoon, are now at Maymyo, while Mandalay is the head-quarters of a military district.

The District Superintendent of police is aided by four Assistant Superintendents (one at head-quarters, the others in charge of the two urban subdivisions and the Maymyo subdivision), 6 inspectors, 19 head constables, 68 sergeants, 625 Burman and 335 Indian constables, distributed in 21 police stations and 15 outposts. South of the city are large barracks for the Mandalay military police battalion, the strength of which is one commandant, two assistant commandants, and 1,356 native officers and men. One assistant commandant and 889 men are stationed at Mandalay itself. The only other military police posts in the District are at Maymyo (60 men) and Madaya (25 men).

There is a Central jail in the north-west corner of Fort Dufferin at Mandalay, with accommodation for 1,141 prisoners, who are engaged in gardening, carpentry, smithy and cane-work, carriage-building and repairing, &c. Large orders for furniture for Government offices are carried out by means of prison labour.

The proportion of literate persons in the District in 1901 was 28·7 per cent. (49·9 males, 7·6 females). The total number of pupils under instruction in the District as a whole was 13,773 in 1891, 18,375 in 1901, and 21,720 in 1904. The principal schools are in Mandalay and Maymyo.

It will be found convenient to give separate educational figures for Mandalay city and for the District. Mandalay city contained in 1903–4, 142 special, 22 secondary, 91 primary, and 927 private schools, with 10,710 male and 3,260 female pupils. These schools were maintained at a total cost of Rs. 96,000, towards which municipal funds contributed Rs. 38,000 and Provincial funds Rs. 16,000. The District, excluding the city, contained in the same year 4 special, 7 secondary, 92 primary, and 749 private schools, with 6,590 male and 1,160 female pupils. These schools are maintained largely from Provincial funds, which provided Rs. 21,000 in 1903–4.

There are four hospitals and a dispensary, with accommodation for 191 in-patients. In 1903 the number of cases treated was 51,508, including 2,987 in-patients, and 1,861 operations were performed. The Mandalay municipal hospital accounted for 2,482 of the in-patients and 17,271 of the out-patients. The total income of these institutions amounted to 1·1 lakhs, towards which the Mandalay municipality contributed Rs. 68,000, the Maymyo town committee Rs. 11,300, and Provincial funds Rs. 21,600. In addition to the hospitals, two institutions for lepers are maintained at Mandalay.

Vaccination is compulsory only within municipal limits and in cantonments. In 1903–4 the number of persons successfully vaccinated was 10,432, representing 28 per 1,000 of population.

[Symes, *Embassy to Ava* (1795); Crawford, *Mission to Ava* (1826); Colonel Yule, *Narrative of the Mission sent to the Court of Ava* (1857); M. Laurie, *Settlement Report* (1894).]

Mandalay City.—Head-quarters of the Division and District of the same name in Upper Burma, and capital of the Burmese kingdom from 1858 to 1885. The city lies in 21° 59′ N. and 96° 6′ E., and occupies part of a plain, here about 8 miles wide, on the east bank of the Irrawaddy, between the river and the Shan range, the dead level of which is broken only by a hill 954 feet in height. To the south-west of this hill, a mile and a half from the river, are the moat and walls of the old city, nearly 6 miles in circumference. The cantonments include the hill with the old city and a space

to the north and east of it, about 6 square miles in all. West and south of the cantonments is the present native city, which stretches to the river on the west, and to the walls of the old fort of Amarapura on the south. The entire area of the municipality and cantonments is 25 square miles, but this includes large unoccupied spaces at the four corners. Religious buildings are scattered over the whole, covering with their precincts 2 square miles. The European quarter is on the south of the fort, and the business quarter is on the west. Masonry buildings are general in the latter, but over the rest of the city the houses are sometimes of wood, more commonly of bamboo. Paddy-fields occupy the country near the river to the north and south; and towards the south-east, where the royal gardens of Mindon once were, is a piece of land now given over to the St. John's Leper Asylum and to rice cultivation. As the city lies below flood level, it is protected by an embankment, which runs all round the municipality and cantonments, and is in some places doubled. A canal, called the Shwetachaung, gives water connexion with Madaya on the north. Along the river bank are some backwaters cut off by the embankments and gradually filling up.

History.

Mandalay dates only from the accession of king Mindon, who is said to have been induced by a dream to abandon for it the old capital of Amarapura, immediately south of the present municipal limits. The walls and moat of the new city and the palace were constructed with paid labour between February, 1857, and May, 1858. Jars full of oil, buried in masonry pits at each of the four corners, are said to have taken the place of the human sacrifices which had once been customary. The whole area to be occupied, both within and without the walls, was laid out in square blocks separated by broad roads, along most of which tamarind and other shade trees were planted. Many of these blocks were occupied in the centre by a high official, whose retainers dwelt along the edges.

Mindon's reign was peaceful, except for an attempt at rebellion by his son the Myingun prince, who in 1866 killed the heir apparent, and eventually fled to Rangoon. Mindon was succeeded in 1878 by his son Thībaw, the history of whose reign is one of palace intrigue varied by massacre. A year after his accession about eighty of his kindred—men, women, and children—were murdered in the palace precincts, and their bodies thrown into a trench. In 1884 occurred a further massacre of about 200 persons, suspected of being concerned in a plot on behalf of the Myingun prince. In 1885 came the rupture with the British; an expeditionary force was dispatched into Upper Burma, and towards the end of November of that year General Prendergast's flotilla appeared off Mandalay. No resistance was offered, and the

king received Colonel Sladen in a summer-house in the palace gardens and formally surrendered himself. For some months after this dacoities and robberies were frequent in and about Mandalay, but the city was eventually reduced to order. About a tenth of the urban area was burnt down during the hot season of 1886, and in August of that year an abnormally high flood burst an embankment built by king Mindon, and caused some loss of property. In 1887 a municipal committee was formed and the metalling of the main roads taken in hand, a telephone system was introduced, and a survey partly carried out. Before the introduction of municipal government the stockade round the palace and the bamboo houses in the old city were removed, compensation being paid for the sites, and new land being given to the expropriated.

Description.

The old city now forms part of the cantonments, and is known as Fort Dufferin. The walls form a perfect square, with a side a mile and a quarter long. They are built of brick and provided with battlements, the total height being 29 feet. Picturesque watch-houses with many-storeyed roofs rise above them at regular intervals, thirteen on each side, the largest over the gates, which are twelve in number. Outside the walls is a strip of grass land, and beyond this the moat, more than 200 feet across, and bridged opposite the central gate on each side, and also opposite the gates on the south-west and north-east.

In the centre of the square, with roads converging on it from the four main gates, is a platform 11 feet high, 1,000 feet long, and about half as wide, on which the palace is built. It was surrounded in the Burmese kings' time by a brick wall and stockade 2,000 feet square, but these have been removed. Within this space, north and south of the palace, are shady pleasure gardens with lakes and grottoes. The garden on the south contains the summer-house where king Thībaw surrendered. On the east is the bell-tower where the watches were sounded, and north of it the glittering tomb of king Mindon, covered with glass mosaic. Opposite the bell-tower, on the south side of the road, is another tower enshrining a tooth of Buddha; and farther south a small monastery of glass mosaic on the site of an older one, where Thībaw was living in retreat with shaven head and yellow robe, in accordance with Burmese custom, when called to the throne.

The principal throne-room, surmounted by a nine-roofed spire 200 feet high, is near the east end of the platform. In front of it is an open hall 285 feet long. Its golden roof is supported by gilded teak pillars, some of them 60 feet high. The building was repaired, and the gilding renewed, at a cost of more than a lakh, after Lord Elgin's visit in 1898. The throne is approached through a gate of gilded iron open-work from a flight of steps at the back. To the west

is another throne-room in which foreign representatives were received. Next in line to the west are the hall of the body-guard ; a waiting-room for readers and others, with the pages' quarters to the north of it; another throne-room used for royal marriages; and a lofty room with an open veranda on two sides that was used by king Mindon as a sleeping-chamber. Thībaw's queens slept in the last room of the series, when not in the royal apartments to the south. On the west of this are sitting-rooms with the usual gilded pillars and roof, and south of them a room from which plays were witnessed. To the east of the entrance hall is a brick building with a tank (now filled in), where the king and queen amused themselves at the annual water-festival by watching the pages and maids-of-honour throw water at each other. On the north of this is the king's treasure chamber and a room where he held informal levées, and on the east the council-chamber where the ministers held their secret deliberations. The Hlutdaw, where they met in public for judicial and other business, was to the east of the platform and has been pulled down. Close to the council-chamber is a watch-tower, 78 feet high, exclusive of its decorative roof, from which a fine view is obtainable. On the north side of the platform is a gilded entrance hall similar to that on the south. Both contained thrones, which have been removed. To the west of this hall are the large apartments occupied by Sinbyumashin ('Lady of the White Elephant'), mother of Thībaw's three queens; and here the neglected Supayāgyi, by right the chief queen, was obliged to live in practical confinement. Most of the buildings on the western half of the platform have been demolished; but the beautiful Lily throne-room, where the wives of officials were received in state twice a year by the king and queen, remains, and till recently was used as part of the Upper Burma Club.

The most important Buddhist shrine in Mandalay is the Payāgyi or Arakan pagoda, 4 miles from the palace and 2 miles south of the Zegyo bazar. Its terraced roof of gilded stucco is of recent construction, the original roof having been burnt in 1884. The building was erected to hold the great brass image of Buddha brought from Arakan by king Bodawpayā after his victorious campaign in 1784. It is said to have been cast by king Sandathuriya of Arakan, who ascended the throne in A.D. 146. Gautama is seated on a pedestal 7 feet high, and measures 12 feet 7 inches from the platform to the tip of the *magaik*, or tiara, on his head. The image was dragged over the mountains by Burmese soldiers, and was accompanied by numerous captives of war, who afterwards settled in Mandalay. Long galleries approach the building from each side, partly decorated with paintings—some, on the north side, descriptive of the bringing of the image from Arakan. The galleries are lined with stalls on which gongs, marionettes,

and the usual bazar goods are displayed, and are thronged in the cold season, especially during a festival, with a gay crowd of many races. In the court on the north-east is a stone inscription, recording the manner in which the image was brought from Arakan. To the south-east is a large tank filled with turtles, and in the north-west court are two colossal bronze images of good execution, but now dilapidated, also brought from Arakan. On the south-west are 575 stone inscriptions—Burmese, Pāli, and Talaing—the originals of which were collected by king Bodawpayā and copied by his orders. On the east bank of the Shwetachaung Canal, a little to the south of the Zegyo bazar, is the Setkyathiha pagoda, built in 1884 over a brass image even larger than that from Arakan. It was cast by order of king Bagyidaw in 1824, and followed the court from Ava to Amarapura and Mandalay. Close to it on the east is a small pagoda built on the site of her old home by Shinbome, a famous beauty who was the wife of five successive kings.

Across the Shwetachaung is the Eindawya pagoda, built in 1847 by king Pagan on the site of a summer-house used by him when a prince. Being on a spacious platform, from which it rises to a height of 114 feet, it is seen to better advantage than the other pagodas in Mandalay. On the west side is the Mahuya Payā, or 'corundum' image, of black stone, brought by an emissary of king Bagyidaw from Gayā in 1833.

To the west of the fort, between the roads leading from the two gates on that side, is the Shwekyimyin pagoda, built in 1852 over an older one said to have been erected in A.D. 1104, and containing several images of great sanctity, in addition to the great brazen Buddha for which it was built. One of these, the Shwelinbin, represents Gautama standing in royal robes, and has been moved from one capital to another since it was placed in a pagoda of the same name by king Narapadisithu of Pagan (A.D. 1167–1204). The Anyathihadaw, which is kept in a vault near the great image, has been so plastered with gold-leaf by devotees that it is now a mere shapeless lump.

Close by to the north is the Payāni or 'red' pagoda, so named from the colour of one of its predecessors, built on the site of a shrine erected in 1092. It is interesting chiefly on account of the presence of the Naungdaw and Nyidaw images, dating from the time of Anawrata, which were stolen from Mandalay hill in the troubles following the annexation and, after being stripped of the mass of gold with which they were covered, thrown into the valley, where they were found by a monk and regilded by the town people.

The Yadanamyizu pagoda is beyond the Shwetachaung on the north side of C Road, three-fourths of a mile from the south-west gate. It

was built in 1478 by king Mahā Thihathura, and is said to have retained its original shape.

On the north side of the fort, in an unfinished building at the foot of Mandalay hill, is a Buddha 25 feet high, hewn out of a single block of Sagyin marble at the beginning of king Mindon's reign. To the east of it is the Sandamani pagoda, containing an iron image of Buddha cast by king Bodawpayā.

Farther east is the Kuthodaw, the most splendid monument of king Mindon, consisting of a pagoda 100 feet high surrounded by 729 others, in each of which is a marble slab inscribed with a part of the Buddhist scriptures in Burmese and Pāli. Great care was taken to collate the various manuscripts so as to arrive at the most correct version, and the whole stands as a complete official record of the sacred writings.

South of the Kuthodaw are the walls of a vast monastery built by the same king and called the Atumashi, or 'incomparable.' These and a forest of blackened pillars are all that is left of the building, which was burnt in 1892. Just to the east of it is the Shwegyaung, or 'golden monastery,' built by Mindon's chief queen after his death with the materials of the house in which he died. The interior is a blaze of gold.

Close to the east gate of the fort is the Taiktaw, a large monastery surrounded by others, all finely carved, which served as the residence of the Thathanabaing, or head of the Buddhist Church, from 1859 to the annexation. The Myadaung monastery, situated on A Road, a mile to the south-west of the fort, is also profusely carved and gilded, though the gilding on the outside is now nearly worn off through exposure to the weather. The builder was Thībaw's favourite queen Supayālat. The Salin monastery, near the racecourse to the north of the fort, contains what is probably the finest carving in Burma. It was built in 1873 by the Salin princess.

On the highest point of Mandalay hill is a pagoda which once contained the Naungdaw and Nyidaw images referred to above. A little lower, at the southern end of the ridge, stood, until it was burnt in 1892, a great wooden image called Shweyattaw, erected by king Mindon on the foundation of Mandalay. It represented Buddha pointing to the palace as the future site of the capital. Preparations are being made to erect a new figure in place of that burnt.

An interesting morning may be spent on the top of the hill with a good glass. The whole of Mandalay lies at one's feet, and every building of importance may be identified. Conspicuous to the south-east are the Kuthodaw and the walls of the Incomparable Monastery. Far beyond them to the south, at the edge of a cultivated plain, the white pagodas on Kyaukse hill may be seen, backed by the Shan range.

Maymyo lies due east, hidden by several ranges of hills. On the north a conical hill marks the marble quarries of Sagyin, and far beyond are the mountains of the Ruby Mines District. West, across the broad Irrawaddy, the huge mass of brickwork erected by king Bodawpayā at Mingun may be seen, with innumerable white pagodas dotted over the hills southward to Sagaing. On the east bank, opposite Sagaing, the pagodas of the old city of Ava, and farther to the left those of Amarapura, rise above the trees.

Half a mile to the west of the south-west corner of the fort is the main bazar, called the Zegyo. The buildings of this huge mart, which covered 12 acres, were erected under king Mindon, and utterly destroyed by fire in 1897. They have since been replaced by a masonry bazar, costing 8 lakhs, where almost everything obtainable in Mandalay may be bought. The bazar sellers are mostly women; and unmarried Burman girls of all classes may be seen displaying their good looks as well as their wares, and sharpening their wits in competition with natives of India, against whom they can hold their own much better than their men-folk.

Within the fort walls are barracks and officers' quarters for one British and two Native infantry regiments. The jail is in the north-west corner, and near it Government House overlooks the moat from the north wall. To the north of the fort, skirting Mandalay hill, are the Burma Sappers' lines, and quarters for a mountain battery. To the south, outside the walls, lie the courthouses, municipal office, and circuit-house; and farther west the hospital, the *dāk*-bungalow, and the railway station. On the west, in the business quarter of the city, are the post and telegraph offices, and the main bazar. There are twelve markets besides the Zegyo within municipal limits, and seventeen police stations and outposts.

Of European religious buildings the chief is the Roman Catholic cathedral, situated in the business quarter. It was completed in 1898, the entire cost being borne by a wealthy Burman convert. The Society for the Propagation of the Gospel has a church and school, built by king Mindon, across the Shwetachaung in the west; the mission of the English Wesleyans is south of the fort, and that of the American Baptists a mile to the south-west. The St. Joseph's Orphanage, opened in 1904, gives free board and teaching to 150 Chinese boys. The St. John's Leper Asylum, a Roman Catholic institution, was built in 1902 at a cost of 3 lakhs through the energy of the late Father Wehinger. It contains seven wards accommodating 50 patients each, and in 1904 had 323 inmates. The asylum is maintained at a cost of Rs. 34,000 a year. Expenses are met by a Government grant of about Rs. 6,000 a year, contributions from municipal and other Local funds amounting to over Rs. 10,000, and private

subscriptions. A little to the west are the wards of the Mission to Lepers in the East, of which the local superintendent is at present a Wesleyan missionary. In 1904 there were 138 inmates in this asylum, besides 11 untainted children of lepers kept separately. The annual cost of maintenance is Rs. 15,000, defrayed from a Government grant of Rs. 3,300, municipal and Local fund contributions (Rs. 4,000), the mission fund (Rs. 2,200), and local subscriptions (Rs. 6,000). The mission has been at work in Mandalay since 1890. The city contains over a hundred Buddhist monasteries and schools, and several mosques.

Population.

The population of Mandalay in 1901 was 183,816, a decrease of 4,999 since the first Census taken in 1891. Of this number, 166,154 persons were living within municipal limits and 17,662 in cantonments. Half of the decrease was in cantonments, and was due mainly to the reduction of the garrison, the falling off in the city itself being little more than 1 per cent. Of the people living within municipal limits, 91 per cent. were returned as speaking Burmese, 4½ per cent. Hindustāni, less than 1 per cent. English, and 3½ per cent. other languages, mostly Indian. A large proportion, however, of the Burmese-speaking people have Indian blood in them. While the number of those speaking Indian languages cannot exceed 8 per cent., those returning themselves as Muhammadan or Hindu in religion are no less than 13 per cent. of the total population; consequently, it would seem that at least 5 per cent. of the Burmese-speaking people must be partly Indian in race. The proportion is possibly greater, for there are many Buddhists of mixed descent. The Chinese in the District numbered 1,365 males and 211 females in 1901, and probably nearly all these were in Mandalay city. The city has several colonies of Manipuris and Hindus from Manipur, Assam, and Arakan, brought as captives after the invasions of those countries, and now called indiscriminately Ponnas. They are all of the Hindu religion, and do not as a rule intermarry with Burmans, but their women wear Burmese dress. Of the 9,000 Ponnas enumerated in the District in 1901, the majority were residents of the city. Christians numbered 2,470, or 1½ per cent. of the total population. Roman Catholic missionaries have been established in Upper Burma since the eighteenth century; the Society for the Propagation of the Gospel has had a school in Mandalay from the time of king Mindon; and the American Baptists and English Wesleyans also have churches and schools. Of the cantonment population, nearly two-thirds were returned as Burmans.

The census returns show that unskilled labourers and their dependents in 1901 numbered 18,000, religious devotees (monks, &c.) 11,000, and Government servants, including the troops, 9,000.

Nearly 8,000 persons were connected with agriculture, and about 10,000 with personal services of various kinds. Of the industries, cotton-weaving ranked first, with close upon 11,000 representatives. Tailors and sempstresses, with their dependents, numbered 10,000. Next came sawyers, carters, and workers or dealers in the precious metals, each with 7,000, sandal-makers with 6,000, and silk-weavers with 5,000. Tanners and lacquerers accounted for more than 2,000, and blacksmiths for a similar number.

Industries.

The arts and crafts of Mandalay include nearly everything that the Burmese race is capable of producing. The use of machinery is almost unknown; and with the exception of a brewery belonging to a European firm, and a few rice and timber-mills, almost all the industries are carried on in the home. Among the arts may be included hammered silver-work, wood-carving, iron-work, painting, and a kind of embroidery, called *shwechido*, of gold and silver thread and spangles. The silver-work now consists mostly of bowls with figures in relief. It is of unequal merit, but good work can be got if demanded. The wood-carving, though the most national of all the arts practised, is in its decadence. The work of the old craftsmen was intended for the open air, where it was exposed to the elements and needed to be effective at a distance. The best work still shows its origin in its bold free lines and vigour of execution. The ironwork chiefly consists of *htis*, intended to ornament the tops of pagodas. The painting produced in the city is not of a high order, but the work on silk is in demand among Europeans. The *shwechido* work is the most characteristic of all. It is gorgeous and effective, being used for the palls at the cremation of monks and for the dresses of royal personages on the stage; but it does not last well, nor does it lend itself to fine detail. Equally rich in effect is a rough kind of gold lacquer interspersed with coloured glass, a favourite material for monastic furniture. The ordinary lacquer-work is inferior to that of Pagan, and is used mostly for platters, the designs on which are effective but wanting in variety. The material used is not lac but *thitsī*, the gum of the *Melanorrhoea usitata*. The patterns of the silk *pasos* and *tameins*, including the beautiful *acheik* work, are constantly varying, and the fashions change as quickly as in any European capital. The making of brass and marble images of Buddha can hardly be called an art, as there is no variation in the type. Brass-work is moulded by the *cire perdu* process. The figure is modelled in wax and encased in a shell of clay. It is next subjected to an intense heat, which expels the wax. The molten brass is then poured in and takes the place of the wax. A pure white marble is obtained from the quarries at Sagyin, 20 miles to the north; and the images made of it, sometimes of great size, are sent all over Burma. Among the minor

industries of the city may be mentioned the making of gongs, circular or three-cornered, and the preparation of sacred writings with ornamental lettering on brass or lacquer.

Administration.

A municipal committee was formed in Mandalay in 1887, and has members representing the European, Burmese, Muhammadan, Hindu, and Chinese communities. The principal sources of revenue are the house and land tax, which has risen steadily from 1·6 lakhs in 1888–9 to 2·4 lakhs in 1903–4, and market dues, which yielded 1·4 lakhs in 1888–9, 2·7 lakhs in 1902–3, and 2·1 lakhs in 1903–4. Of this amount the Zegyo bazar contributed 1·5 lakhs in 1902–3, and 1·2 lakhs in 1903–4, the falling off in the latter year being due to a fire in 1903. Slaughter-houses yielded Rs. 44,000 in 1903–4. Other sources of income are the cart tax and toll, which has increased in the last five years from Rs. 23,000 to Rs. 31,000; and the hackney-carriage tax, which has fallen off from Rs. 11,000 to Rs. 9,000. The principal item of expenditure is conservancy, which cost 1·1 lakhs in 1903–4, while Rs. 14,000 was received as conservancy fees. Roads are a varying item of expenditure. The average for the past five years is Rs. 1,30,000, besides Rs. 26,000 for establishment. The maintenance of the hospital costs about Rs. 65,000 yearly, the fees received being about Rs. 5,000. About Rs. 50,000 a year is devoted to education. There is no municipal school, but the Educational department divides the grant among mission and other schools. The lighting of the town costs Rs. 43,000, which amount is just covered by a tax levied for the purpose. The expenditure on general administration rose from Rs. 28,000 in 1899–1900 to Rs. 36,000 in 1903–4, and that on the collection of taxes from Rs. 15,000 to Rs. 19,000. The survey costs about Rs. 16,000 a year, and the fire brigade Rs. 20,000. Vaccination and registration of births and deaths each cost about Rs. 4,000. Other items are Rs. 20,000 payable to Government to defray the annual cost of the embankment surrounding the city, and grants of Rs. 10,000 to the cantonment fund and Rs. 10,800 to the leper asylums. The total income and expenditure during the ten years ending 1901 averaged 5·4 lakhs. In 1903–4 they were respectively 15 lakhs and 12 lakhs. The incidence of taxation in the city is Rs. 1–8–4, or about 2*s.* per head. Income tax is levied by Government, but not *thathameda*, so that persons with incomes of less than Rs. 1,000 are more lightly taxed than in the villages outside municipal limits. The length of roads within the municipality is 117 miles, of which, however, only 51 are metalled. An electric tramway, opened in 1904, runs along 12 miles of road; and it is proposed to light the city, or part of it, by electricity, in place of oil. Both conservancy and water-supply are capable of great improvement. Night-soil is removed in carts, but only when the houseowner chooses

to pay a fee. In the business quarter, however, a tax has been sanctioned. The water-supply is from the moat and river, and from wells. A scheme for sinking new wells at a cost of $3\frac{1}{2}$ lakhs is under consideration. The average death-rate during the five years ending 1903-4 was 38·2, and the birth-rate 40·72 per 1,000. The hospital, which was built in 1891, had 2,482 in-patients in 1903-4, and medicines were dispensed in over 17,000 cases. In addition to the hospital, there is a dispensary near the Zegyo bazar, at which a somewhat larger number of cases were attended to.

The cantonment fund is chiefly maintained by grants-in-aid from the Government and the municipality, amounting in 1903-4 to Rs. 54,000. These are supplemented by house, conservancy, and other taxes, yielding in all about Rs. 16,000, a sum of Rs. 7,000 from market dues, and other collections amounting to about Rs. 4,000. The chief items of expenditure are conservancy (Rs. 31,000), police (Rs. 17,000), and hospital (Rs. 8,000). There are 26 miles of metalled roads within cantonment limits, maintained from Imperial funds. The Upper Burma Volunteer Rifles, 560 strong, have their head-quarters at Mandalay.

Education.

Statistics regarding the educational institutions of the city (vernacular and Anglo-vernacular) are given in the District article. Of Anglo-vernacular schools, there are eight secondary and three primary. Of these, the principal are St. Peter's high school and St. Joseph's (Roman Catholic), the American Baptist Mission high and European schools, the Royal school of the Society for the Propagation of the Gospel, and the high school of the European Wesleyan Mission. Special schools include a survey school and a normal school for teachers.

Mandalay Canal.—An irrigation canal in Mandalay District, Upper Burma, running north and south, parallel to the Irrawaddy, and watering a level plain in the centre of the District, which is bounded on the north by the Madaya stream, on the south by the Myitnge river, on the east by the Shan Hills, and on the west by the Irrawaddy. The canal, which derives its water from the Madaya stream, is 39 miles in length, has 86 miles of distributaries, and is capable of irrigating 80,000 acres of land. It was commenced in 1896 and was opened in 1902, its cost having been nearly 51 lakhs. It irrigated 30,000 acres in 1903-4. It waters much the same country as a canal dug for irrigation during Burmese rule, which, owing to faulty alignment and the inability of the Burmans to deal with the cross-drainage from the Shan Hills in the east, failed of its object. The revenue derived from the work in 1903-4 was nearly a lakh.

Māndalgarh.—Head-quarters of a *zila* or district of the same name in the State of Udaipur, Rājputāna, situated in 25° 13′ N. and 75° 7′ E., about 100 miles north-east of Udaipur city. Popu-

lation (1901), 1,462. To the north-west is a fort about half a mile in length, with a low rampart wall and bastions encircling the crest of the hill on which it stands; it is strong towards the south, but assailable from the hills to the north. The fort is said to have been constructed about the middle of the twelfth century by a chief of the Bālnot clan of Rājputs (a branch of the Solankis). According to the Musalmān historians, it was taken by Muzaffar Shāh of Gujarāt at the end of the fourteenth century, and twice by Mahmūd Khiljī of Mālwā in the middle of the fifteenth century. Subsequently, it belonged alternately to the Rānās of Udaipur and the Mughal emperors. In or about 1650 Shāh Jahān granted it in *jāgīr* to Rājā Rūp Singh of Kishangarh, who partially built a palace there, but Rānā Rāj Singh retook it in 1660. Twenty years later, Aurangzeb invaded Mewār and captured Māndalgarh, and in 1700 he made it over to Jujhār Singh, the Rāthor chief of Pisāngan (in Ajmer District), from whom it was recovered by Rānā Amar Singh in 1706; and it has since remained in the uninterrupted possession of his successors. In the town are a primary school, attended by about 60 boys, and a dispensary. Iron mines are still worked at Bīgod and other places in the district.

Mandapeta.—Town in the Rāmachandrapuram *tāluk* of Godāvari District, Madras, situated in 16° 51′ N. and 81° 55′ E. Population (1901), 8,380. Local affairs are managed by a Union *panchāyat*.

Mandārgiri.—Hill about 700 feet high, in the Bānka subdivision of Bhāgalpur District, Bengal, situated in 24° 50′ N. and 87° 2′ E., about 40 miles south of the town of Bhāgalpur. The hill, which consists of a huge mass of granite overgrown near the summit with low jungle, is a sacred spot to the Hindus, who consider it the mythological mountain Mandār, which was used in churning the ocean. The oldest buildings are two ruined temples near the top of the hill, which are ascribed by local tradition to a legendary Chola king who was cured of his leprosy by bathing at a tank here. There are two inscriptions and some rude carvings on the rock, and numerous artificial tanks have been cut in the side of the hill, some of which go back to the time of Aditya Sen (A.D. 675). The largest of these, known as the Sītākund, is 100 feet long by 500 feet wide and stands 500 feet above the surrounding plain.

[M. Martin, *Eastern India*, vol. ii, pp. 60–3.]

Mandasor Zila.—District of the Gwalior State, Central India, lying between 23° 33′ and 25° 19′ N. and 74° 11′ and 75° 54′ E., with an area of 1,721 square miles. The population in 1901 was 196,434, giving a density of 114 persons per square mile. The district contains three towns—MANDASOR (population, 20,936), the head-quarters, NĪMACH (including the cantonment, 21,588), and

JĀWAD (8,005)—and 775 villages. It is divided into seven *parganas*, with head-quarters at Mandasor, Nīmach, Bhaogarh, Jāwad, Nāhargarh, Singoli, and Gangāpur. The land revenue is Rs. 9,03,000. Mandasor lies on the Mālwā plateau, and, except for the range which runs east and west to the north of Nīmach, consists of a level plain covered with black cotton soil. Poppy is largely grown.

Mandasor Town.—Head-quarters of the district of the same name in Gwalior State, Central India, situated in 24° 4′ N. and 75° 5′ E., on the bank of the Siwana (Seuna or Sau) river, a tributary of the Siprā, and on the Ajmer-Khandwā branch of the Rājputāna-Mālwā Railway, 1,516 feet above sea-level. The population fell from 25,785 in 1891 to 20,936 in 1901. The town is a centre of the opium trade, one of the Government dépôts at which duty is levied on the drug being established here. Another industry of some importance is the manufacture of coloured cloth for quilts and *chunris* (a piece of printed cloth worn by women to cover the arms and upper part of the body). Local affairs are managed by a municipality constituted in 1902. The income amounts to Rs. 1,300, derived mainly from octroi. Besides the usual offices, a combined British post and telegraph office, a State post office, a police station, a dispensary, a school, and an inspection bungalow are situated here.

Mandasor is a place of considerable antiquity and of historical and archaeological importance. Its name in former days was Dashāpura, or the 'township of ten hamlets,' and it appears to be referred to in an inscription found at Nāsik, which dates from early in the Christian era. An inscription near Mandasor refers to the erection of a temple of the Sun in 437, during the rule of Kumāra Gupta I, which was repaired thirty-six years later. As the town stands now, it is entirely Muhammadan, though Hindu and Jain remains are numerous. The fort on the east of the town is said to have been founded by Alā-ud-dīn Khiljī in the fourteenth century, but it was considerably increased and made a place of importance by Hoshang Shāh (1405–34) of Mālwā. Many of the stones used in the construction of the wall seem to have been brought from Afzalpur, 11 miles to the south. Owing to its position, Mandasor figures continually in history. Near the big tank, outside the city, Humāyūn surrounded the camp of Bahādur Shāh in 1535 and defeated him, driving him out of Mālwā. When Mālwā was taken by Akbar in 1562, Mandasor became the head-quarters of the Mandasor *sarkār* of the *Sūbah* of Mālwā. In the eighteenth century it fell to Sindhia, in whose possession it has since remained. After his defeat at Mehidpur, Holkar came to terms with the British, and the treaty by which Mālwā was settled was signed at Mandasor early in 1818.

In the Mutiny of 1857 one Sāhibzāda Fīroz Shāh, a member of the Delhi house, raised his standard here and collected a considerable following, among whom were a large number of Rohillas. As their presence endangered the safety of Nīmach, the Mālwā field force made a rapid advance on the fort, which was captured on November 21, 1857. A fierce fight took place three days later at the village of Gurādia, 5 miles north-west of Mandasor, in which the Rohillas fought bravely; but their defeat broke up the forces of Fīroz Shāh and completely cleared this part of the country.

In Mandasor itself and in the neighbourhood there are numerous remains of archaeological interest. The village of Sondanī (or Songnī), 3 miles to the south-east, contains two magnificent monolithic sandstone pillars with lion and bell capitals. An inscription incised on both of them records that Yasodharman, king of Mālwā, defeated at this spot the Huna adventurer Mihirakula, probably in 528. Great importance attaches to these for their use in settling the commencement of the Gupta era.

[J. F. Fleet, *Indian Antiquary*, vol. xv.]

Mandāwa.—Town in the Shekhāwati *nizāmat* of the State of Jaipur, Rājputāna, situated in 28° 4′ N. and 75° 9′ E., about 90 miles north-west of Jaipur city. Population (1901), 5,165. A combined post and telegraph office and several schools are maintained here.

Mandāwar.—Town in the District and *tahsīl* of Bijnor, United Provinces, situated in 29° 29′ N. and 78° 8′ E., 8 miles north of Bijnor town. Population (1901), 7,210. It was identified by St. Martin and by General Cunningham with the Motīpura visited by Hiuen Tsiang in the seventh century; but this identification rests entirely on its distance from various places, and no excavations have been made[1]. According to tradition, some Agarwāl Baniās settled here in the twelfth century, when they found the place deserted. The town was captured by Tīmūr in 1399, and was the capital of a *mahāl* or *pargana* under Akbar. In 1805 it was pillaged by Amīr Khān, the Pindāri, and during the Mutiny it suffered at the hands of Jāt marauders. A mound half a mile square rises some 10 feet above the rest of the town, containing large bricks. The Jāma Masjid stands on this, constructed from the materials of a Hindu temple. North-east of the town is another large mound, and there are two tanks in the neighbourhood. Mandāwar is administered under Act XX of 1856, with an income of about Rs. 1,200. There is a small industry in papier mâché; and boxes, pen-trays, paper-knives, &c., are made. A primary school has 126 pupils, and two aided schools have 85 pupils. The American Methodist Mission has a branch here.

[1] *Archaeological Survey Reports*, vol. i, p. 248.

Māndhāta.—Village in the Khandwā *tahsīl* of Nimār District, Central Provinces, situated in 22° 15′ N. and 76° 9′ E., 32 miles from Khandwā and 7 miles east of Mortakkā station on the Rājputāna-Mālwā Railway. Population (1901), 832. It stands on the Narbadā river and is a well-known Hindu place of pilgrimage, as it contains one of the twelve celebrated *lingams* of Siva. The village of Māndhāta is built partly upon the south bank of the Narbadā and partly upon an island in the river, and is exceedingly picturesque with rows of houses, temples, and shops, and the Rao's palace conspicuous above the rest, standing on terraces scarped out of the sides of a hill on the island. Between the island and the southern bank the Narbadā forms a deep pool, which is full of large tame fish. Upon the summit of the hill are signs of a once flourishing settlement, in the shape of ruined fortifications and temples. The most interesting is the temple of Siddhanāth. It stands on a raised platform, whose plinth is supported by elephants in various positions. The temple of Onkār on the island is a comparatively modern structure, but the great columns supporting it have been taken from some older building. On the north bank of the river are some Vaishnava and Jain temples. The Rao of Māndhāta, the hereditary custodian of all the modern temples, is a Bhilāla, claiming descent from a Chauhān Rājput who is said to have taken Māndhāta from a Bhīl chief in 1165. A large fair is held annually in October, at which in former times devotees of Bhairon threw themselves from the cliffs and were dashed to pieces on the rocks in the river. The last sacrifice of this kind was witnessed by a British officer in 1824. It is the practice at the fair to present horses as offerings at the shrine of Siva; and as the frugal worshippers are inclined to consider that any horse will pass muster for an offering as long as it is alive, it has come to be a proverb, when describing an absolutely worthless horse, to say that it is good enough to be offered at the shrine of Māndhāta.

Mandī State.—Native State in the Punjab, under the political control of the Commissioner, Jullundur Division, lying between 31° 23′ and 32° 4′ N. and 76° 40′ and 77° 22′ E., in the upper reaches of the Beās. It is bordered on the north by Chhotā Bangāhal; on the east by the Nargu range, which divides it from the Kulū valley, and by the Beās, Tīrthan, and Bisna streams; on the south it adjoins Suket, and on the west Kāngra District. It is 54 miles long and 33 broad, with an area of 1,200 square miles of mountainous country. The Beās enters at the middle of its eastern border, and leaves it near the north-west corner, thus dividing it into two parts, of which the northern is the smaller. This is trisected by two parallel ranges, of which the higher and eastern, the Ghoghar-kī-Dhār, is continued south of the Beās and extends into the south-west of the State. The south-eastern corner,

Physical aspects.

the Mandī Sarāj, or 'highland,' is formed by the western end of the Jalaurī range.

The State lies partly on rocks belonging to the central Himālayan zone, of unknown age, and partly on Tertiary shales and sandstones. The rocks of the central zone consist of slates, conglomerates, and limestones, which have been referred to the infra-Blaini and Blaini and Krol groups of the Simla area. The sandstones and shales of the sub-Himālayan zone belong to the Sirmūr series, of Lower Tertiary age, and to the Siwālik series (Upper Tertiary). The most important mineral is rock-salt, which appears to be connected with the Tertiary beds [1].

Wild flowers—such as the anemone, dog-violet, and pimpernel—grow abundantly in the hills in March and April. The best timber trees are the *deodār*, blue pine, *chīl* (*Pinus longifolia*), spruce, silver fir, and box. The forests abound in game, leopards, bears (especially black), hyenas, barking-deer, *gural*, and musk deer being common. Feathered game are also abundant, and fish in the larger streams.

The autumn months are unhealthy, except in the upper ranges, the lower valley being malarious. The temperature is generally cool even in summer, except at Mandī, the capital, which is shut in by hills, and in the west of the State, which is only about 2,000 feet above sea-level. The rainfall in the upper ranges of the Nargu and Ghoghar-kī-Dhār hills is heavy.

History.

Mandī formed part of Suket State until in the reign of Sahu Sen, the eleventh of the Chandarbansi Rājās of that kingdom, Bahu Sen, his younger brother, left Suket and settled at Manglaur in Kulū. His descendant, Karanchan, was killed in a battle fought with the Rājā of Kulū, and his Rānī, who was pregnant, fled to her father's house at Seokot. On the way a son was born to her under an oak-tree (*bān*), who succeeded the Rānā of Seokot under the title of Bān Sen. Bān Sen enlarged his possessions and transferred his capital to Bhin, 4 miles above Mandī town; and his son, Kalyān Sen, purchased Batauhli opposite Mandī on the other side of the Beās. Little is known of their successors until the time of Ajbar Sen, who founded the town of Mandī in 1527. The ambition of a later chief, Sūraj Sen, brought disaster upon the principality. Having attacked Bangāhal, he was defeated by Mān Singh, the Rājā's brother-in-law, lost the salt-mines of Guma and Drang, and was compelled to sue for peace and pay a war indemnity; yet he built the strong fort of Kamla in 1625 and the Damdama palace at Mandī. All his eighteen sons having died in his lifetime, he had an image made of silver which he called Mādhava Rao, and to it he bequeathed his

[1] Medlicott, 'The Sub-Himālayan Range between the Ganges and Rāvi,' *Memoirs, Geological Survey of India*, vol. iii, pt. ii.

kingdom in 1648. He was succeeded in 1658 by his brother Shyām Sangh, who built the temple of Shyāmi Kālī on the Tarna ridge in Mandī town. His successor, Gūr Sen, brought the famous image preserved in the Padal temple from Jagannāth; and his illegitimate son, Jippū, reorganized the revenue of the State on a system still in force. Rājā Sidh Sen, who succeeded in 1686, a great warrior supposed to be possessed of miraculous powers, conquered Nāchan, Hātlī, and Daled in 1688, and Dhanesgarh, Raipur, and Mādhopur from Suket in 1690; but he treacherously murdered Pirthī Pāl, the Rājā of Bangāhal, at Mandī. He adorned his capital with a temple of Ganpati, and also built the Shivapuri temple at Hātgarh in 1705. It is said that Gurū Gobind Singh was hospitably entertained by him at Mandī, an occasion on which the Gurū blessed him. Sidh Sen is recorded to have died at the age of 100 in 1729. His grandson and successor, Shamsher Singh, conquered Chuborai, Rāmgarh, Deogarh, Hastpur, and Sarnī from Kulū. His son, Isrī Sen, succeeded when only five years old; and Sansār Chand, the Katoch Rājā of Kāngra, seized the opportunity to invade Mandī. He took Hātlī and Chohar, which he made over to Suket and Kulū respectively, and Anantpur, which he retained. Isrī Sen was kept a prisoner in Kāngra fort, and his ministers paid tribute to the conqueror. In 1805 Sansār Chand attacked Rahlūr, and its Rājā invoked the aid of the Gurkhas, who had already overrun the country from the Gogra to the Sutlej. The allies defeated the Katoch Rājā at Mahal Morī in 1806; and Isrī Sen, released from captivity, paid homage to the Gurkha Amar Singh and was restored to his kingdom. But in 1809 the Sikhs, under Ranjīt Singh, drove the Gurkhas back across the Sutlej, and in 1810 Desā Singh Majīthīā was appointed *nāzim* of all the Hill States including Mandī. Its tribute, at first Rs. 30,000, was raised to a lakh in 1815, reduced again to Rs. 50,000 a year or two later, and fixed at Rs. 75,000, in addition to a succession fine of one lakh, on the accession of Zālim Sen in 1826. On the death of Ranjīt Singh in 1839, the Sikh government determined to complete the reduction of Mandī, as a stepping-stone to the projected conquest of Chinese Tartary. In 1840 General Ventura occupied Mandī, and Kamlagarh capitulated after a siege of two months. The Rājā, Balbīr Singh, was sent a prisoner to Amritsar, but was released in 1841 by Mahārājā Sher Singh and returned to Mandī. The oppression of the Sikhs drove him into negotiations with the British; and after the battle of Sobraon his proffered allegiance was accepted, and the relations between the Rājā and the paramount power were defined in a *sanad* dated October 24, 1846. By that date the Sikh garrisons had already been expelled by the unaided efforts of the Rājā and his subjects. Balbīr Singh died in 1851, and was succeeded by his four-year-old son, Bije Sen. A Council of Regency was formed

under the presidency of Wazīr Gusaon. Dissensions among the members compelled Government in 1852 to entrust all the real power to the Wazīr, and during the remaining years of the Rājā's minority the State was well governed. The training of the Rājā was, however, neglected until too late, and his accession to the throne in 1866 was followed by confusion in the State. During the rest of his long reign the administration was carried on only with the perpetual assistance and advice of the British Government. Bije Sen died in 1902, and his illegitimate son, Bhawāni Sen, was recognized as his successor. He was educated at the Aitchison College, Lahore, and for the first two years after his installation in 1903 had the assistance of an officer of the Indian Civil Service as Superintendent of the State. The Rājā of Mandī is entitled to a salute of 11 guns.

Population.

Besides MANDĪ TOWN, its capital, the State contains 146 villages. The population at the last three enumerations was: (1881) 147,017, (1891) 166,923, and (1901) 174,045. The State is divided into 24 *wazīrīs*, and each of these was formerly divided into *mahrais* or groups of hamlets (*graon* or *bāsi*), with head-quarters at a *garh* or fort in which the revenue in kind was stored. Hindus number 170,304, or about 98 per cent. of the population; and there are 3,187 Muhammadans and 510 Buddhists. The State is sparsely populated. The language is Mandiālī, but Sarāj has a distinct dialect called Pahārī. By far the most numerous caste is that of the Kanets, who number 82,000, and are essentially agriculturists. After them come the Brāhmans (19,000), Dumnās (Dūms or low-castes, 14,000), Kolīs (14,000), and Chamārs (leather-workers, 11,000). The Rājputs (6,000) form a territorial aristocracy under the Rājā. Of the total population, 84 per cent. live by agriculture, supplemented by pasture and rude home industries. The industrial castes are few, and numerically small.

Agriculture.

The principal autumn crops are rice, maize, *māsh* (*Phaseolus radiatus*), millets, and potatoes; the principal spring crops are wheat, barley, tobacco, and sugar-cane. The Rājā is the sole proprietor of all the land in the State. Lands are leased to *mālguzārs* by written leases, which specify the revenue and *begār* (if any) due on the holding and its extent, and stipulate that an enhanced rate is to be paid if additional land is brought under cultivation. On the other hand, a *mālguzār* can be ejected only for disloyalty or failure to pay rent, and he is forbidden to sell or mortgage his holding, though he may transfer its possession for a period not exceeding fifteen years. Under the *mālguzārs* tenants cultivate, usually on payment of half the produce.

The area for which particulars are on record is 1,130 square miles, of which 550 square miles, or 48 per cent., are forests; 112, or

10 per cent., not available for cultivation; 68, or 6 per cent., cultivable waste other than fallows; and 400 square miles, or 36 per cent., are cultivated. The staple food-crops are rice, maize, pulses, millets, and potatoes, the last introduced some years ago. Cotton and turmeric are also grown. In spring, wheat, barley, and gram are the main crops in the lowlands. Poppy is grown in the highlands, and inferior sugar-cane in the Ballh valley. Mandī opium, like that made in Kashmir and the Simla Hill States, pays a duty of Rs. 2 per seer on import into the Punjab. Tea, introduced in 1865, is now grown in two State gardens, which produce about 60,000 lb. per annum.

The cattle, though small, are fairly strong. Buffaloes are kept only by the Gūjars, who are mostly immigrants from Jammu, and by a few landholders. Ponies and mules are scarce; but an attempt is being made to encourage mule-breeding, and two Syrian donkeys have been imported by the State. Sheep are generally kept, and blankets and clothing made of the wool, while goats are still more numerous.

Artificial irrigation is carried on by means of *kūhls* (cuts) from the hill streams. The channels are made by private enterprise, and their management rests entirely with the people.

Forests.

Nearly three-fifths of the State is occupied by forest and grazing lands. The southern hills bordering on Kulū abound in *deodār* and blue pine, while spruce and *chīl* trees are found on the lower hills in the Beās valley. Boxwood and chestnut occur in some localities, and the common Himālayan oak grows nearly everywhere. The *tūn* (*Cedrela Toona*) and *khirk* (*Celtis*) are found in numbers near villages. A forest department is now being organized. The revenue from forests in 1903–4 was Rs. 15,000.

Mines and minerals.

The Ghoghar-kī-Dhār is rich in minerals. Iron is found throughout the Sarāj *wazīrī* in inexhaustible quantities, and is collected after rain, when the veins are exposed and the schist is soft. Owing, however, to the lack of coal, it can only be smelted with charcoal, and the out-turn is small and unprofitable. Salt is worked at Guma and Drang, being quarried from shallow open cuttings. It is of inferior quality, but is in demand for the use of cattle, and a considerable quantity is exported to Kāngra District and the neighbouring Hill States. Its export into British territory is permitted under an arrangement between the Government of India and the Rājā, by which the former receives two-thirds and the latter one-third of the duty levied on the total quantity of salt sold at the mines, the Rājā being authorized to charge, in addition to the duty of $4\frac{1}{2}$ annas per maund, $10\frac{1}{2}$ annas as the price of the salt. The revenue derived by the State from this source in 1903–4, when the duty was 6 annas a maund, amounted

to Rs. 96,693, while the British Government's share of the duty was Rs. 31,639.

With the exception of the ordinary manufactures of iron-ware, brass utensils, woodwork, dyeing, and weaving, there are no industries; and the trade of the State is confined to the export of rice, wheat, potatoes, tea, salt, and *ghī*, with timber and other forest produce. Piece-goods, utensils, and ornaments are imported largely, with sugar, oil, and Khewra salt in small quantities.

Trade and communications.

The principal route to Mandī town is the road from Pathānkot on the North-Western Railway. This is metalled from Pathānkot to Baijnāth (82 miles) in Kāngra District, and the State has undertaken to metal the remaining 47 miles in Mandī territory. The Beās is crossed at Mandī town by the Empress Bridge, built by the State in 1878 at a cost of a lakh. From Mandī two roads lead into Kulū: one, the summer route, over the Bhabu pass (9,480 feet), and the other over the Dulchī pass. Minor roads, open all the year round, connect Mandī town with Jullundur (124 miles), Dorāhā (via Rūpar, 106 miles), and Simla (via Suket, 88 miles).

The Rājā is assisted in the administration of the State by the Wazīr, who is entrusted with very extensive powers, both executive and judicial. As a judicial officer, his decisions are subject to appeal to the Rājā; and sentences of death passed by him are submitted to the Rājā for concurrence, and further require confirmation by the Commissioner of the Jullundur Division, who is the Political Agent to the Lieutenant-Governor for the State. As a revenue officer, the Wazīr controls the two *tahsīldārs*, whose judicial decisions are also subject to appeal to him. Though there are only two officers with the rank of *tahsīldār*, the State is divided into four *tahsīls*, Nagar-Mandī, Chichot, Gopālpur, and Harābāgh, which comprise 8, 3, 3, and 10 of the old *wazīrīs* respectively.

Administration.

The total revenue in 1903-4 was 4·4 lakhs, of which 2·3 lakhs was land revenue. The tribute payable to the British Government is one lakh.

The State is divided into eight police circles, each under a deputy-inspector (*thānadār*), and there are 137 constables. The whole force is under an Inspector. The jail at Mandī town has accommodation for 50 prisoners, and there is a lock-up at each police station. The military forces consist of 20 cavalry and 152 infantry, including gunners and police, and 2 serviceable guns.

Mandī stands low among the Districts and States of the Punjab as regards the literacy of its population, only 2·4 per cent. of the total (4·6 males and 0·1 females) being able to read and write in

1901. The number of pupils under instruction was 121 in 1880-1, 138 in 1890-1, 201 in 1900-1, and 180 in 1903-4. In the last year there were eight schools.

The only hospital is the King Edward VII Hospital at Mandī town, built in 1902, with accommodation for 12 in-patients. It is in charge of an Assistant Surgeon; and 25,154 cases, including 1,777 in-patients, were treated at it in 1904, and 306 operations performed. The expenditure in that year was Rs. 3,615, all from State funds. Vaccination is becoming fairly popular, and since 1902 the State has entertained a vaccinator of its own.

[*State Gazetteer* (in press); L. H. Griffin, *The Rājās of the Punjab* (second edition, 1873).]

Mandī Town.—Capital of the Mandī State, Punjab, situated in 31° 43′ N. and 76° 58′ E., on the Beās, 131 miles from Pathānkot and 88 from Simla. Population (1901), 8,144. Founded in 1527 by Ajbar Sen, Rājā of Mandī, the town contains several temples and other buildings of interest. These include the Chauntra or court where the Chauntra Wazīr or prime minister is installed, and the Damdama palace, built in the seventeenth century. The Beās, which passes through the town, is spanned by the handsome iron Empress Bridge, and the Suket stream, which joins that river below the town, by the Fitzpatrick Bridge. The town possesses an Anglo-vernacular middle school and a hospital. It has a considerable trade, being one of the chief marts for commerce with Ladākh and Yārkand.

Mandlā District.—District in the Jubbulpore Division of the Central Provinces, lying between 22° 12′ and 23° 23′ N. and 79° 58′ and 81° 45′ E., with an area of 5,054 square miles. Mandlā is the most easterly of the Sātpurā plateau Districts, and occupies a stretch of wild, hilly country forming part of the main eastern range of the Sātpurā Hills, and culminating in the plateau of Amarkantak just beyond the border in Rewah. It is bounded on the north-west by Jubbulpore District; on the north-east by the State of Rewah; on the south and south-west by Bālāghāt and Seonī; and on the south-east by Bilāspur District and the State of Kawardhā. The Narbadā river, rising at Amarkantak, flows first to the north-west, separating Mandlā from Rewah, and then turning to the west crosses the District and curves tortuously through the central range of hills. When rather more than half-way across, it makes a sudden bend to the south, thrown back by a long spur running out from the central range as far as Mandlā town, and after almost enclosing the town in a loop, again turns and flows north and north-west to Jubbulpore, bounding the District for some distance on its western border. The Narbadā is the centre of the drainage system, and during its passage through the District receives

Physical aspects.

the waters of numerous tributary streams from the south and north. The larger and richer portion of Mandlā lies south of the Narbadā, and consists of a succession of hill ranges running down to the river, and separated by the valleys of a number of its affluents. The principal of these are the valley of the Banjār on the west, those of the Burhner and its tributaries in the centre, and those of the Kharmer and a number of smaller streams to the east. The valley of the Banjār contains the best cultivated tract in the District, called the Haveli, which extends on both sides of the river for some miles south of its junction with the Narbadā at Mandlā. South of the Haveli, the Banjār valley is covered with forest. This is the lowest part of the District, and has an elevation of about 1,500 feet. East of the Banjār runs a lofty range of hills approaching the Narbadā at Rāmnagar, and separating the valley or plateau of the Banjār from that of the Hālon and Burhner, which is 500 feet higher. To the north this plateau is much cut up by hills, with small and fertile valleys lying between them; but in the south there are large expanses of good black soil, watered by perennial streams, and covered over large areas with magnificent *sāl* forests (*Shorea robusta*). Still farther east lies the third plateau of Raigarh, at an elevation of about 2,700 feet. This consists for the most part of an open cultivable plain, but is very sparsely populated and covered all through the hot season with an abundance of thick green grass, which makes it a well-known grazing ground. The rivers, even in the hottest months, never quite dry up; and the numerous natural springs render wells unnecessary. The hills here are flat-topped, sometimes forming small plateaux of a few square miles in extent. Amarkantak, across the border, which is the most important of these, has an elevation of 3,400 feet, while Chaurādādar within the District is of about the same height. North of the Narbadā the hills become more rugged and inaccessible, and extend over most of the country. The valleys are small and scattered, though some of them are extremely fertile.

The geology of Mandlā presents but little variety, as except on the southern and eastern borders nearly the whole surface is covered with trap. In the south, the formation of the tract on both sides of the Bānjar to within a short distance of its junction with the Narbadā consists of crystalline rocks; but they are not exposed over any wide area. East of the Banjār valley, though granite, syenite, and limestone frequently appear on the banks of streams and form the sides of hills, yet almost everywhere, even on the tops of the highest peaks, trap is the uppermost rock, and sometimes the trap itself is covered by laterite.

Sāl (*Shorea robusta*) is the most important timber tree of the District, and occupies the higher hill-sides. The forests on lower levels are

of the mixed type common in the Central Provinces, teak and bamboos being the most important trees. Other common trees are *harrā* (*Terminalia Chebula*), *sāj* (*Terminalia tomentosa*), *tendū* (*Diospyros tomentosa*), *kusumb* (*Schleichera trijuga*), *haldu* (*Adina cordifolia*), and *dhaurā* (*Anogeissus latifolia*).

Wild animals are still plentiful in most of the District forests, especially in the central and southern regions. Towards the east they have been almost exterminated by the snares and poisoned arrows of the Baigās. Bison are found in most of the forests, and these animals are now being carefully preserved; but they are nowhere very numerous, as they appear to suffer periodically from epidemics of cow-pox, with which they are doubtless infected by tame cattle grazing in the forests. The wild buffalo is not now met with, though it must at one time have been common, and it has been shot in the Phen valley within the last fifteen or twenty years. The deer tribe is well represented. The *bārāsinghā* or swamp deer is found in large herds in the *sāl* forests. *Sāmbar*, spotted, and barking-deer are common, and the mouse deer is also found. *Nīlgai* and antelope are frequently seen in the open plains, but *chinkāra* or 'ravine deer' are somewhat rare. Tigers, leopards, and bears are found in all the forests. The numerous packs of wild dogs are very destructive to game. Partridges and quail are fairly common, but water-birds are not numerous, as there are very few tanks. Mahseer and other kinds of fish are found in the Narbadā, but seldom attain to full size.

The climate is cool and pleasant. December and January are the coldest months, and occasionally frosts occur. On the higher plateaux ice is by no means rare. Malarial fever of a somewhat virulent type is prevalent during the monsoon and autumn months.

The annual rainfall averages 52 inches. Hailstorms not infrequently occur in the winter months and do serious damage to the crops, and thunderstorms are common in the hot season.

History.

The Gond Rājput dynasty of Garhā-Mandlā commenced, according to an inscription in the palace of Rāmnagar, in the fifth century, with the accession of Jādho Rai, a Rājput adventurer who entered the service of an old Gond king, married his daughter, and succeeded him on the throne. Cunningham places the date two centuries later, in 664. The original seat of the dynasty is supposed to have been Garhā near Jubbulpore, but this theory is discredited by the fact that the Kalachuri Rājput dynasty was in power there as late as the twelfth century. In any case the Garhā-Mandlā kingdom was a petty local chiefship until the accession of Sangrām Sāh, the forty-seventh king, in 1480. This prince extended his dominions over the Narbadā valley, and possibly Bhopāl, Saugor, and Damoh, and most of the Sātpurā hill country, and left fifty-two

forts or districts to his son. The control of the Garhā-Mandlā kings over their extended principality was, however, short-lived, for in 1564 Asaf Khān, the imperial viceroy, invaded their territories. The queen Durgāvati, then acting as regent for her infant son, met him near the fort of Singorgarh in Damoh; but being defeated, she retired past Garhā towards Mandlā, and took up a strong position in a narrow defile. Here, mounted on an elephant, she bravely headed her troops in the defence of the pass, and notwithstanding that she had received an arrow-wound in her eye refused to retire. But by an extraordinary coincidence the river in the rear of her position, which had been nearly dry a few hours before the action commenced, began suddenly to rise and soon became unfordable. Finding her plan of retreat thus frustrated, and seeing her troops give way, the queen snatched a dagger from her elephant-driver and plunged it into her breast. Asaf Khān acquired an immense booty, including, it is said, more than a thousand elephants. From this time the fortunes of the Mandlā kingdom rapidly declined. The districts afterwards formed into the State of Bhopāl were ceded to the emperor Akbar, to obtain his recognition of the next Rājā, Chandra Sāh. In the time of Chandra Sāh's grandson, Prem Nārāyan, the Bundelās invaded Narsinghpur and stormed the castle of Chaurāgarh. During the succeeding reigns family quarrels led the rival parties to solicit foreign intervention in support of their pretensions, and for this a price had always to be paid. Part of Saugor was ceded to the Mughal emperor, the south of Saugor and Damoh to Chhatarsāl Rājā of Pannā, and Seonī to the Gond Rājā of Deogarh. In 1742 the Peshwā invaded Mandlā, and this was followed by the exaction of *chauth*. The Bhonslas of Nāgpur annexed the territories now constituting Bālāghāt and part of Bhandāra. Finally, in 1781, the last king of the Gond-Rājput line was deposed, and Mandlā was annexed to the Marāthā government of Saugor, then under the control of the Peshwā. At some period of the Gond kingdom the District must have been comparatively well populated, as numerous remains of villages can be observed in places now covered by forest; but one of the Saugor rulers, Vāsudeo Pandit, is said to have extorted several lakhs of rupees from the people in eighteen months by unbridled oppression, and to have left it ruined and depopulated. In 1799 Mandlā was appropriated by the Bhonsla Rājās of Nāgpur, in accordance with a treaty concluded some years previously with the Peshwa; and during the period of eighteen years which followed, the District was repeatedly overrun by the Pindāris, who, however, did not succeed in taking the town of Mandlā. In 1818 Mandlā became British territory; and as the Marāthā garrison in the fort refused to surrender, a force under General Marshall took it by assault. The peace of the District was not subsequently disturbed, except for a brief period

during the Mutiny of 1857, when the chiefs of Rāmgarh, Shahpurā, and Sohāgpur joined the mutineers, taking with them their Gond retainers, who, though not really disaffected, followed their chiefs with their usual unquestioning faithfulness. Order was restored early in 1858, and the estates of Rāmgarh and Shahpurā were subsequently confiscated, while Sohāgpur was made over to Rewah. The last representative of the Gond Rājput kings, Shankar Sāh, had retired to Jubbulpore, where he held an estate of a few villages. During the Mutiny he attempted to raise a party in Jubbulpore, then in a very disturbed condition, with a view to rebellion. On being captured and convicted, he and his son were blown away from guns.

The District contains few notable buildings. Deogaon, at the junction of the Narbadā and Burhner, 20 miles north-east of Mandlā, has an old temple. At Kukarrāmath, 12 miles from Dindorī, are the remains of numerous temples, most of which have been excavated and carried away to make the buildings at Dindorī. The palace of the Gond Rājās of Garhā-Mandlā, built in 1663, is situated at Rāmnagar, about 10 miles east of Mandlā on the south bank of the Narbadā, and is in a fairly good state of preservation but of little architectural merit. There are numerous other ruins, as Rāmnagar remained the seat of government for eight reigns.

Population.

The population of the District in the last three years of census was as follows: (1881) 300,659; (1891) 339,341; (1901) 317,250. The increase between 1881 and 1891, of 13 per cent., was attributed partly to the increased accuracy of the Census. During the last decade the decrease was 6½ per cent., chiefly in the Mandlā *tahsīl*. The District was severely affected by famine in 1897, and there was great mortality among the forest tribes. The figures of population given below have been adjusted on account of transfers of territory since the Census of 1901:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Mandlā . .	2,530	1	980	178,771	70	− 8·4	4,154
Dindorī . .	2,524	...	854	139,629	55	− 3·9	1,812
District total	5,054	1	1,834	318,400	63	− 6·5	5,966

In 1904 an area of 15 square miles with 11 villages containing 1,150 persons was transferred from Bālāghāt to Mandlā, and 5 square miles of Government forest from Mandlā to Bālāghāt. The corrected District totals of area and population are 5,054 square miles and

318,400 persons. The density of population is 63 persons per square mile, which is smaller than that of any District in the Province with the exception of Chānda. The District contains one town, MANDLĀ, the head-quarters; and 1,834 inhabited villages. The villages are usually very small, the average number of persons to each being only 174. The figures of religion show that 121,000 persons, or 38 per cent. of the population, are Hindus, and 191,000, or 60 per cent., Animists. Practically all the forest tribes are returned as still professing their own religion. Muhammadans number only 5,000. Nearly 75 per cent. of the population speak the Baghelī dialect of Eastern Hindī, and nearly 25 per cent. Gondī. The former dialect is spoken in the Central Provinces only in Jubbulpore and Mandlā, and resembles Chhattīsgarhī in many respects. About half of the Gonds speak their own language and the other half a corrupt Hindī, which is also the language of the Baigās and Kols.

The principal landholding castes are Brāhmans (7,000), Kalārs, Gonds, Lodhīs (5,000), Baniās, and Kāyasths. Next to Gonds, the most important castes numerically are Ahīrs (23,000), Pankās (14,000), and Telis (10,000). The Kalārs were money-lenders to the Gonds before the advent of the Baniā. The Lodhīs were formerly the chief landholding caste and possessed several fine estates. The Gonds number 160,000, or just half of the population. They are lazy cultivators, and favour the small millets *kodon* and *kutkī*, which in new soil yield a large return with a minimum of exertion. The Baigās number about 14,000. They are probably the first residents of the District; and a Baigā is always the village priest and magician, on account of the more intimate and long-standing acquaintance he is supposed to possess with the local deities. The Baigās have always practised *bewar* or shifting cultivation in patches of forest, manured by burning the timber which has been cut down on it. When they were debarred from continuing this destructive method in Government forests, a Reserve of 24,000 acres was allotted to them for this purpose, in which there are still a few villages. Most of them have now, however, taken to cultivation in the ordinary manner. Until recently the Baigās considered that hunting was the only dignified occupation for a man, and left as much as possible of the work of cultivation to their womenkind. About 83 per cent. of the population of the District are dependent on agriculture.

Of the 560 Christians, 536 are natives, and most of these belong to the Church Missionary Society, which has stations at Mandlā and four other villages. There are a number of European missionaries, and the institutions supported include schools at all the stations and two dispensaries.

The varieties of soil are mainly those formed by the decomposition

of basalt rock, though in the south, and especially on the high south-eastern plateau, areas of sandy soil occur. Black soil is generally found only in patches in low-lying valleys; but owing to the fact that the total area under cultivation is so small, it furnishes a higher proportion of the whole than in most Districts. The remaining land consists mainly of the shallow stony soil in which only the minor autumn crops are grown. Much of the forest stands on good cultivable soil, and although the land newly broken up in the last thirty years is generally of the poorer varieties, still the expansion of cultivation is far from having reached its limit. About 31 per cent. of the area occupied is uncultivated, resting fallows being essential in the absence of any artificial stimulus to allow the poorer land to recuperate. Wheat is sown in embanked fields in the tract round Mandlā town and in open fields in the villages to the south-west, where the ground is too uneven and the soil not sufficiently adhesive to allow of embankments.

Agriculture.

About 800 square miles, formerly Government forest, are in process of settlement on *ryotwāri* tenure, while 10,000 acres are held wholly or partially free of revenue, and 33 square miles have been sold outright under the Waste Land Rules. The balance is held on the ordinary *mālguzāri* tenure. The following table gives statistics of cultivation in 1903-4, according to revenue returns, areas being in square miles:—

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.	Forests.
Mandlā . .	2,537	608	5	731	906
Dindorī .	2,524	682	...	674	942
Total	5,061	1,290	5	1,405	1,848

Wheat covers 164 square miles or 13 per cent. of the cropped area, rice 173 square miles or 17 per cent., the oilseeds *til* and *jagnī* 145 square miles, and the small millets *kodon* and *kutkī* 444 square miles. The main feature of recent statistics is the decline in the popularity of wheat, and the increase in that of almost every other crop, as a result of the succession of unfavourable wheat harvests. But in the twenty years previous to the summary settlement of 1890, the area under wheat had more than doubled, while that of rice had increased by nearly 50 per cent.

The method of rice cultivation is peculiar, the young shoots being ploughed up as soon as they appear above the ground. Those which are ploughed or trodden well into the ground subsequently take root more strongly, while those left exposed on the surface die off and the crop is thus thinned. Little rice is transplanted. The practice of raising two crops in the embanked wheat-fields has grown up in the

last thirty years, and second crops are now normally grown on about 80 square miles. Manure is applied to this area. Considerable quantities of waste or forest land have in recent years been allotted for cultivation on the *ryotwāri* tenure, the area so taken up amounting to 217 square miles, on which a revenue of Rs. 57,000 is paid. Practically no loans have been taken under the Land Improvement Act, while between 1894 and 1904 1·25 lakhs was advanced under the Agriculturists' Loans Act.

The cattle used are bred locally. They are small and weak, no care being exercised in breeding, though Mandlā has every facility for the production of an excellent class of bullocks. Those raised on the Raigarh and Rāmgarh plateaux are the best. Buffaloes are not generally used for cultivation, but they are bred, and the cows kept for the manufacture of *ghī*, the young bulls being sold in Chhattīsgarh. The upper classes generally keep a small pony of the usual type for riding, as carts cannot travel except on three or four main roads and in the Havelī during the open season. Ponies and bullocks are also largely used for pack carriage. There are very few goats or sheep.

Irrigation is insignificant, being applied only to sugar-cane, which covers about 500 acres, and to vegetable and garden crops, including the betel-vine gardens, of which there are many round Mandlā town. The sandy soil of the south and south-east would, however, repay irrigation. Considerable stretches of sandy or *kachhār* land are exposed on the banks of the Narbadā, which are flooded every year by the river, and fertilized by a deposit of silt; and on these vegetables and tobacco are raised.

Forests.

Government forests cover an area of 1,848 square miles, distributed all over the District, though the most valuable are in the south and south-east. About 854 miles, not included in this area, have lately been demarcated for disforestation and agricultural settlement. The most important tree is the *sāl* (*Shorea robusta*), which forms almost pure forests, occupying the whole of the eastern portion of the District, as well as a fringe of varying depth along the northern and southern boundaries. It is found in the south in the forests known as the Banjār and Phen Reserves, where specimens 100 feet in height and 10 feet in girth are not uncommon. The western and central portions of the District contain the ordinary type of mixed forest common all over the Central Provinces. Teak is not very plentiful and does not attain large dimensions. Bamboos, which are very numerous in these mixed forests, are their most generally useful and valuable product. Owing to the heavy rainfall, the *sāl* forests in the east of the District are watered by running streams, and are widely known as grazing grounds for cattle, large

herds being brought to them annually from all parts of the Province for the hot season. Among the minor products of the forests the most important is the myrabolam. In an exceptionally favourable year the Government forests of the District have been known to yield more than 1,000 tons of this commodity. Other minor products include lac, resin from the *sāl*-tree, *tīkhur*, and a species of arrow-root. The forest revenue in 1903–4 was Rs. 1,42,000, of which about Rs. 44,000 was realized from sales of timber and Rs. 47,000 from grazing.

Extensive iron-ore deposits occur in the District, and are quarried and smelted by Agariās or Gond iron-workers. The industry does not flourish, as their methods are very primitive and they find it difficult to compete with imported iron. The furnaces used are so small that each smelting does not yield more than 2 lb. of refined iron. Only 34 tons of iron were produced in 1904. Manganese is reported to have been found within 3 miles of Mandlā town at Sahasradhāra. Limestone of good quality is common in many parts of the District, but is only quarried in small quantities to meet local requirements.

Trade and communications.

Coarse cotton cloth is produced in most of the larger villages, but no fine material is woven except by a few families of Koshtās in Mandlā town. Machine-made cloth is now worn, even in the interior, except by the forest tribes. Other classes of agriculturists usually wear hand-woven loin-cloths, and coats of cloth from the mills. The vessels manufactured from bell-metal at Mandlā are well-known locally. Glass bangles are made at Itkā near Nainpur, and lac bangles at Mandlā, Bamhnī, and Hirdenagar. The most important bazar or weekly market is at Pindrai on the western border towards Seonī, which is both a cattle and grain market, and a centre for the disposal of local produce and the purchase of imported commodities. The other large bazars are at Mandlā, Bamhnī, and Newāri in the Mandlā *tahsīl*, and at Kukarrāmath in the Dindorī *tahsīl*. Two important annual fairs are held: at Hirdenagar situated at the junction of the Banjār with the Matiāri, and at Madhpurī on the Narbadā about eight miles east of Mandlā town.

Wheat, rice, oilseeds, *san*-hemp, and *ghī* are the staple exports. From the forests a large quantity of *sāl* timber and a little teak are sent, and also lac and myrabolams. Bombay sea-salt and Mauritius sugar come through Jubbulpore. Kerosene oil is generally used for lighting. *Gur* is imported from Cawnpore, and in spite of the cost of carriage can undersell that made locally. The pulse *arhar* is not produced in Mandlā and is imported for consumption, as well as turmeric and all other condiments and spices. Vessels of brass are brought from Mirzāpur and of bell-metal from Umrer. Silk and

cotton cloth comes principally from Nāgpur. Agarwāl and Gahoī Baniās conduct the general trade of the District, and Punjābi Muhammadans the timber trade.

The Jubbulpore-Gondiā branch of the Bengal-Nāgpur Railway, completed in 1904, passes through a small strip of the District on the south-western border, and has two stations, Nainpur and Pindrai, within the District. It is in contemplation to construct a branch line from Nainpur to Mandlā, a distance of about 22 miles by the direct route. At present most of the trade from the west of the District is with Jubbulpore, along the only existing metalled road. An alternative route to Jubbulpore through Pindrai attracts some traffic, on account of the importance of the Pindrai weekly market. From Dindorī, 64 miles to the east of Mandlā, there is an embanked road to Jubbulpore, which affords an outlet from the north-west. Dindorī is also connected with Birsinghpur and Pendrā stations on the Katnī-Bilāspur branch of the Bengal-Nāgpur Railway. Carriage has hitherto generally been by pack-animals, except on the main routes. The District has 48 miles of metalled and 233 miles of unmetalled roads, and the annual expenditure on maintenance is Rs. 35,000. With the exception of 7 miles kept up out of Local funds, all roads are maintained by the Public Works department. Only 13 miles of avenues of trees are shown in the returns.

Famine.

Mandlā suffered from distress or famine in 1818–9, 1823–7, and 1833–4. On the first occasion the autumn rains were short, and excessive rain fell during the winter months. From 1823 to 1827 a succession of short crops was experienced, due to floods, hail, and blight, which caused the desertion of many villages. In 1833–4 the autumn rains failed, and the spring crops could not be sown owing to the hardness of the ground, caused by the premature cessation of the rains. Rice was imported from Chhattīsgarh by Government agency, but no further details are known regarding these famines. In the general famine of 1868–9 Mandlā was only slightly affected, as the *kodon* crop on which the poorest of the population depend was fairly successful, and no general relief was necessary. When the famine of 1896–7 came upon the District, Mandlā had already suffered from a succession of poor crops for three years. The autumn harvest of 1896 was a total failure, and distress was very severe, especially among the forest tribes, who were inclined to view with suspicion the efforts made by Government to keep them alive. Relief operations had commenced in June, 1896, on account of the previous bad harvests, and they lasted until the end of 1897. The maximum number on relief was 37,000 persons, or 11 per cent. of the population, in September, 1897; and the total expenditure on relief was 7·5 lakhs. In 1899-1900 Mandlā was not severely affected.

The Deputy-Commissioner is aided by one Assistant or Extra-Assistant Commissioner. For administrative purposes the District is divided into two *tahsīls*, each of which has a *tahsīldār* and a *naib-tahsīldār*. The Forest officer is generally a member of the Imperial service. The Executive Engineer at Jubbulpore is also in charge of Mandlā.

Administration.

The judicial staff consists of a Subordinate Judge who is also District Judge, and a Munsif at Mandlā. The Divisional and Sessions Judge of the Jubbulpore Division has jurisdiction in Mandlā. The civil litigation is petty and crime extremely light, the commonest class of cases being contraventions of the Excise Act by the illicit manufacture of liquor.

Mandlā is stated to have paid at one time a very high revenue to its Gond rulers, but when it first came under British control it had undergone an interlude of Marāthā maladministration in its worst form. No records of the earlier governments remain, but at the date of the cession in 1818 the revenue paid to the Marāthās is believed to have been Rs. 40,000. Under the Marāthās the revenue was settled annually with the village headmen, who were allowed to retain one-seventh part of it. No rights in land were recognized, but the headmen and tenants were not usually ejected except for default. Numerous miscellaneous taxes were also imposed, the realizations from which are said to have exceeded the ordinary land revenue. One of these was the sale of widows, who were looked on as government property, and sold according to a sliding scale varying with their age and accomplishments, the highest price being Rs. 1,000. The revenue raised in the first annual settlement after the cession was Rs. 36,000; and subsequent efforts to increase this having resulted in further impoverishing the District, in 1837 a twenty years' settlement was made for Rs. 27,000. On its expiry the District was summarily assessed for a few years until the completion of the twenty years' settlement of 1868, when the revenue was fixed at Rs. 62,000, or an increase of more than 48 per cent. on the previous demand. On this occasion a cadastral survey was undertaken, and proprietary rights were conferred on the village headmen. The twenty years' settlement expired in 1888, and the District was then summarily assessed for a period of fourteen to fifteen years pending the undertaking of a regular cadastral survey. A very large increase in agricultural prosperity had taken place during the currency of the previous settlement, and the price of grain had more than doubled. At revision the revenue was raised to Rs. 1,08,000, an increase of 64 per cent. on the former demand, but giving an incidence of less than $3\frac{1}{2}$ annas per cultivated acre. The District is now again under settlement, the previous term having expired, while a new cadastral survey has also been completed.

The following table shows the receipts, in thousands of rupees, of revenue from land and from all sources:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . . .	90	1,48	1,69	1,78
Total revenue . . .	2,46	4,20	3,15	4,64

Mandlā has no District council, and Local funds are administered by the Deputy-Commissioner, the income from these in 1903–4 being Rs. 31,000. MANDLĀ TOWN is the only municipality.

The police force consists of 311 officers and men, with 3 mounted constables, under a District Superintendent, besides 1,043 village watchmen for 1,834 inhabited towns and villages. Mandlā town has a District jail with accommodation for 85 prisoners, including 8 females; the daily average number in 1904 was 69.

In respect of education the District stands fifteenth in the Province, 3·7 per cent. of the male population being able to read and write in 1901, while only 203 females were returned as literate. The percentage of children under instruction to those of school-going age is 8. Statistics of the number of pupils are as follows: (1880–1) 949; (1890–1) 1,767; (1900–1) 2,586; (1903–4) 3,873, including 283 girls. The educational institutions comprise an English middle school, 3 vernacular middle schools, and 56 primary schools. Mission schools for male and female orphans are maintained at Patparā. The expenditure on education in 1903–4 was Rs. 18,000, of which Rs. 13,500 was provided from Provincial and Local funds, and Rs. 1,400 by fees.

The District has 6 dispensaries, with accommodation for 52 in-patients. In 1904 the number of cases treated was 25,108, of whom 428 were in-patients, and 352 operations were performed. The expenditure was Rs. 4,000, mainly derived from Provincial and Local funds.

Vaccination is compulsory only in the municipality of Mandlā. The number of persons successfully vaccinated in 1903–4 was 64 per 1,000 of the District population, this result being very favourable.

[J. B. Fuller, *Report on the Summary Settlement*, 1894. A District Gazetteer is being compiled.]

Mandlā Tahsīl.—Southern *tahsīl* of Mandlā District, Central Provinces, lying between 22° 12′ and 23° 9′ N. and 79° 58′ and 81° 12′ E., with an area of 2,537 square miles. Population decreased from 193,928 in 1891 to 177,621 in 1901. The area and population have been slightly altered since the Census of 1901 by the transfer of territory to and from Bālāghāt District, and the adjusted figures are 2,530 square miles and 178,771 persons. The density is 70 persons per square mile. The *tahsīl* contains one town, MANDLĀ (population, 5,428), the

tahsīl and District head-quarters; and 980 inhabited villages. Excluding 906 square miles of Government forest, 44 per cent. of the available area is occupied for cultivation. The cultivated area in 1903–4 was 608 square miles. The demand for land revenue in the same year was Rs. 90,000, and for cesses Rs. 14,000. The *tahsīl* contains some open tracts of good land on the south-west, while the rest consists of a number of small and fertile valleys separated by hill ranges and forests. The eastern plateaux are covered with nutritious grass, and form a well-known grazing area for cattle in the summer months.

Mandlā Town.—Head-quarters of the District and *tahsīl* of the same name, Central Provinces, situated in 22° 36′ N. and 80° 23′ E., 60 miles south-east of Jubbulpore by road, and 22 miles from Nainpur junction on the narrow-gauge Jubbulpore-Gondiā line. The town is picturesquely situated in a loop of the river Narbadā, which surrounds it on three sides, and for 15 miles between Mandlā and Rāmnagar flows in a deep bed unbroken by rocks. Population (1901), 5,428. Mandlā was made the capital of the Gond Garhā-Mandlā dynasty about 1670. The Gonds erected a fort and built a palace. Their successors, the Marāthās, built a wall on the side of the town not protected by the river, which has lately been demolished. Mandlā was held by a Marāthā garrison in 1818, and was taken by assault by the British. It contains numerous *ghāts* leading down to the Narbadā, and some modern temples. Rāmnagar, the site of a Gond palace, is 10 miles from Mandlā. The town was created a municipality in 1867. The municipal receipts during the decade ending 1901 averaged Rs. 7,400. In 1903–4 the receipts were Rs. 7,600, mainly derived from a house tax and tolls on roads and ferries. The principal industry is the manufacture of vessels from bell-metal. A number of betel-vine gardens are situated in the outskirts of the town, and vegetables are grown on the stretches of sandy alluvial soil which are left exposed during the dry season on the banks of the Narbadā. Mandlā contains an English middle school, girls' and branch schools, besides a private Sanskrit school; three dispensaries, including mission and police hospitals; and a veterinary dispensary. A station of the Church Missionary Society has been established here.

Mandlāna.—Village in the Gohāna *tahsīl* of Rohtak District, Punjab. *See* MUNDLĀNA.

Mandleshwar.—Head-quarters of the *pargana* of the same name in the Indore State, Central India, situated in 22° 11′ N. and 75° 42′ E. It stands on the right bank of the Narbadā, at a narrow point where in the monsoon the stream often rises 60 feet above its ordinary level, becoming a roaring torrent. Population (1901), 2,807. It fell to the Peshwā in the eighteenth century; and in 1740 was granted by Malhār Rao Holkar to a Brāhman, Vyankatrām Shāstrī, whose family still holds

a *sanad* for it. In 1823 it became the head-quarters of the District of Nimār, which until 1864 was managed by the Agent to the Governor-General at Indore. In 1864, on the transfer of Nimār to the Central Provinces administration, the head-quarters were moved to Khandwā, a station at the junction of the Great Indian Peninsula and Rājputāna-Mālwā Railways. Mandleshwar was restored to Holkar in 1867. The town contains a palace, and several bungalows erected under British rule, and also a British and State post office, a school, a dispensary, and an inspection bungalow.

Mandor.—Ruined town in the State of Jodhpur, Rājputāna, situated in 26° 21′ N. and 73° 2′ E., about 5 miles north of Jodhpur city. Population (1901), 1,450. The place is of great historical interest from having been the capital of the Parihār Rājputs till 1381, when it was wrested from them by Rao Chonda, and subsequently the seat of government of the Rāthor Rājputs till 1459, when Jodhpur city was founded. The old fort, built originally by a Buddhist architect, but now in ruins, contains a low and dark pillared chamber, in which is found the sculptured effigy of Nāhar Rao, a famous Parihār chief. On an elevated plateau not far from the fort are the Pānch Kūnda ('five reservoirs'); the cenotaphs of four of the earlier Rāthor rulers, the carving on that of Rao Ganga, who died about 1532, being very fine; and an old temple with an inscription dated 1210. In another direction are the cenotaphs attesting the epoch of Mārwār's glory, which commenced with Māldeo and ended with the sons of Ajīt; and the humbler monuments erected over the ashes of later chiefs. Of these buildings, that raised in memory of Ajīt Singh (who was murdered by his son about 1724) is larger and grander than anything in the neighbourhood; it marks the spot where his sixty-four queens and concubines immolated themselves on his funeral pyre. Another object of interest is the hall of heroes, a gallery of sixteen colossal figures hewn out of a single natural rock. It is known as the Tetīs Karor Devātān-ka-sthān, or 'the abode of the 330 million gods' of Hindu mythology.

[A. Cunningham, *Archaeological Survey of Northern India*, vol. xxiii.]

Māndu (or Māndogarh).—Historic fort in the Dhār State, Central India, situated in 22° 21′ N. and 75° 26′ E., 22 miles from Dhār town, on the summit of a flat-topped hill in the Vindhyan range, 2,079 feet above sea-level.

Māndu must have been a stronghold from the earliest days, although practically nothing is known of its history previous to Muhammadan times. In 1304 it was taken by Ain-ul-mulk, and just a century later became the capital of the Muhammadan kingdom of Mālwā under Hoshang Shāh Ghorī (1405–34). During the rule of the MĀLWĀ dynasty Māndu underwent the usual vicissitudes of capital towns in those days, being, except for fourteen years during the rule of

Ghiyās-ud-dīn Khiljī (1475–1500), constantly the scene of siege and battle.

In 1531 Mālwā was annexed to Gujarāt by Bahādur Shāh, in whose possession it remained until he was defeated in 1535 by Humāyūn. On Humāyūn's retiring soon after, the fort was seized by one Mallū Khān, who assumed independence under the title of Kādir Shāh. He was ousted by Sher Shāh in 1545, when Māndu, with the rest of Mālwā, was placed under his general, Shujāat (or Shujāwal) Khān. On the break-up of the Sūri dynasty, Shujāat Khān's son and successor Bayāzīd, better known as Bāz Bahādur, succeeded to the rule of Mālwā and assumed independence. He is best remembered for his skill in music, and for his romantic attachment to the beautiful and accomplished singer, Rūpmatī of Sārangpur. In 1560–2 Māndu was finally incorporated in the Mughal empire, and became the head-quarters of a *sarkār* in the *Sūbah* of Mālwā. Akbar visited Māndu in 1564 and again in 1598. In 1585 the English merchant and traveller Fitch visited the fort. The emperor Jahāngīr stayed at Māndu for some months in 1616 and was accompanied by Sir Thomas Roe, who describes his sojourn there at some length. Jahāngīr also gives a long account of the visit in his diary, and notes that he had the old palaces repaired for the use of himself and his retinue at a cost of three lakhs. Wild animals abounded in the neighbourhood, and the beautiful Nūr Jahān herself shot four tigers, a fact which roused the emperor's admiration. He visited Māndu again in 1620. In 1625 prince Khurram (Shāh Jahān), when in rebellion against his father, took refuge in Māndu. In 1696 the Marāthās held the town, but only for a time, the country not passing finally to the present Dhār family till 1732.

The fort is formed of the entire hill, round which runs a battlemented wall nearly 23 miles in circuit. Inside are numerous mosques, palaces, tombs, and dwelling-houses, all more or less in a state of decay, but many of them magnificent specimens of Pathān architecture. Akbar appears to have destroyed a large number of the buildings to render the place less attractive to his rebel subjects. Jahāngīr states that his father took six months to capture the fort, when he caused the gateways, towers, and ramparts, with the city within, to be dismantled and laid in ruins. The fort has ten gates, several of which bear inscriptions referring to their erection or repair. The usual entrance is by the Gārī Darwāza ('carriage gate') on the north side close to the Delhi Gate. Just beyond the Gārī Darwāza the road leads to a beautiful collection of ruined palaces, built by the Khiljī rulers of Mālwā and enclosed within a wall. The principal buildings inside this enclosure are the Hindola Mahal, a massively built structure with steeply sloping buttresses, containing a great hall, very suggestive of the dining-hall of an Oxford college, and the picturesque Jahāz Mahal ('ship palace'),

so called from its overhanging a lake. To the north of this enclosure stands the oldest mosque on the hill, built of fragments of Jain temples by Dilāwar Khān in 1405. Next come the Jāma Masjid and tomb of Hoshang Shāh, the two finest buildings in the fort now standing. The great mosque is a splendid example of Pathān architecture, of simple grandeur and massive strength. It was founded by Hoshang Shāh and completed in the year 1454. Opposite is a mound of débris, in which the remains of a magnificent marble tomb have been discovered, probably that of Mahmūd Khiljī I. When complete, it must have surpassed every other building on the hill. Beside it stand the foundations of the Tower of Victory, seven storeys high, raised by Mahmūd in 1443, in commemoration of his victory over Rānā Kūmbha of Chitor. The nature of the victory may be gathered from the fact that the Rānā erected the famous tower on Chitor fort in 1448, in memory of his success on the same occasion. The tomb of Hoshang Shāh stands beside his mosque. It is a magnificent marble-domed mausoleum, which in its massive simplicity and dim-lighted roughness is a suitable resting-place for a great warrior. Not far beyond stands the mosque of Malik Mugdīs, the father of Mahmūd I. It was built in 1432 from the remains of other buildings, and, though somewhat damaged, is still a very fine building, both in its proportions and delicate finish. The remaining buildings of importance are the palaces of Bāz Bahādur and Rūpmatī. The former stands about half a mile from the scarp of the hill, the latter on its very edge. The view from the roof of Rūpmatī's palace is a magnificent one. Below flows the broad stream of the sacred Narbadā, its fertile valley lined with fields of wheat and poppy, while to the south the long line of the forest-covered Sātpurās stretch ridge behind ridge down to the valley of the Tāpti river beyond. Among these hills the sacred peak of Bāwangaja (*see* BARWĀNĪ) stands conspicuous.

[C. Harris, *The Ruins of Mandoo* (1860); *Bombay Gazetteer*, vol. i, part ii, pp. 352–84; Captain Barnes, *Journal of the Bombay Branch, Royal Asiatic Society*, vol. xxi, pp. 355–91.]

Māndvi Tāluka.—North-eastern *tāluka* of Surat District, Bombay, lying between 21° 12′ and 21° 27′ N. and 72° 59′ and 73° 29′ E., with an area of 279 square miles. The river Tāpti forms the southern boundary. There are 136 villages and one town, MĀNDVI (population, 4,142), the head-quarters. The population in 1901 was 42,450, compared with 53,942 in 1891. This is the most thinly populated *tāluka* in the District, and the density, 152 persons per square mile, is much below the average. Land revenue and cesses in 1903–4 amounted to over 1·8 lakhs. The western part of the *tāluka* is the most fertile and prosperous; in the east the population gradually becomes scanty and unsettled, and cultivation disappears. The climate is the worst in Surat

District. Both in ponds and wells the water-supply is defective and its quality bad. The staple crops are rice, cotton, and *jowār*.

Māndvi Town (1).—Head-quarters of the *tāluka* of the same name in Surat District, Bombay, situated in 21° 18′ N. and 73° 22′ E. Population (1901), 4,142. The municipality was established in 1868. During the decade ending 1901 the income averaged Rs. 6,000; in 1903-4 it amounted to Rs. 6,273. The town contains a dispensary and four schools, three (including an English school) for boys and one for girls, attended respectively by 302 and 58 pupils.

Māndvi Town (*Māndavi*) (2).—Seaport in the State of Cutch, Bombay, situated in 22° 50′ N. and 69° 32′ E., on the coast of the Gulf of Cutch, 36 miles south-west of Bhūj. Population (1901), 24,683. The town contains a hospital and a dispensary, treating annually about 14,000 patients. Māndvi, or 'the mart,' also called Maska Māndvi, was known in old times as Raipur or Riyān. Two suburbs, Old and New Saraya, inhabited by traders and seafaring men, stand outside the town walls. Vessels of 70 tons can come within 500 yards. Māndvi is a port of call for British India steamers. The *muallims* (pilots) are noted throughout Cutch. There are two lighthouses: one at the end of the breakwater with a revolving dioptric light of the fourth order; and the other on the south-west bastion of the fort, which is maintained by the State and is visible for 17 miles in clear weather. The light is of the holophotal order, and shows three flashes at intervals of thirty seconds. Māndvi is a municipal town, with an income in 1903-4 of Rs. 6,600.

Māndwa.—Petty State in REWĀ KĀNTHA, Bombay.

Mandya.—North-eastern *tāluk* of Mysore District, Mysore State, lying between 12° 26′ and 12° 48′ N. and 76° 43′ and 77° 8′ E., with an area of 450 square miles. The population in 1901 was 115,574, compared with 99,783 in 1891. The *tāluk* contains two towns, Mandya (population, 4,496), the head-quarters, and MADDŪR (2,597); and 300 villages. The land revenue demand in 1903-4 was Rs. 1,74,000. The Shimsha flows through the east of the *tāluk* from north to south. It is dammed north of Maddūr, and feeds several miles of channels for irrigation. The country is gently undulating, moderately wooded, and contains no jungle. The 'dry-crop' soils are poor and gravelly, especially in the uplands to the north. Good red soil occurs in the centre and east of the Shimsha. The soils of 'wet' lands are of fine quality. Rice is the principal 'wet' crop. There is a good deal of mulberry in the east. The areca gardens were ruined in the famine of 1878. Inferior crops are grown after the harvest and ploughed in for manuring the rice-fields. Sheep are numerous, and a superior kind of blanket is made at Mandya and other places. Silkworms are largely reared, the cocoons being sent to Channapatna for reeling.

Maner.—Village in the Dinapore subdivision of Patna District, Bengal, situated in 25° 38′ N. and 84° 53′ E., a few miles below the junction of the Son with the Ganges, 10 miles from Dinapore cantonment and 5 miles from Bihtā station on the East Indian Railway. Population (1901), 2,765. Maner is a very old place, being mentioned in the *Ain-i-Akbarī*. The chief antiquities are the tombs of Makhdūm Yahia Maner and Makhdūm Shāh Daulat. The latter, which was built in 1616, stands on a raised platform, and at each corner rises a slender pillar of graceful proportions and exquisite beauty. It has a great dome, and the ceiling is covered with delicately carved texts from the Korān. Two annual fairs are held at Maner.

Māngal.—One of the Simla Hill States, Punjab, lying between 31° 18′ and 31° 22′ N. and 76° 55′ and 77° 1′ E., with an area of 12 square miles. Population (1901), 1,227. The chiefs are Rājputs of the Atri tribe, and the family originally came from Mārwār. The State was an ancient dependency of Bilāspur, but was declared independent after the expulsion of the Gurkhas in 1815. Its principal products are grain and opium, and it has a revenue of Rs. 900, out of which Rs. 72 is paid as tribute. The present chief, Rānā Tilok Singh, was born in 1851, and succeeded in 1892.

Mangalagiri ('Hill of happiness').—Town in the District and *tāluk* of Guntūr, Madras, situated in 16° 26′ N. and 80° 34′ E. Population (1901), 7,702. Some distance up the hill after which it is named is a rock-cut platform with a temple of Narasimhaswāmi, to which thousands of Hindus flock during the annual festival held at the full moon in March. In the town is a large deep reservoir, built square with stone steps. Local legends used to say that it was unfathomable, and had a golden temple at the bottom; but in the great famine of 1833 it dried up. In it were found nearly 10,000 old matchlocks, thrown there, doubtless, during one of the many wars which have swept over this part of the country.

Mangaldai. — Subdivision of Darrang District, Eastern Bengal and Assam, lying between 26° 12′ and 26° 56′ N. and 91° 42′ and 92° 27′ E., with an area of 1,245 square miles. It consists of a compact block of land lying between the Brahmaputra and the Himālayas. Between 1891 and 1901 the population fell from 187,950 to 170,580, while in the previous decade there had been hardly any increase. This lack of progress is chiefly due to *kalā azār*, the malarial fever which has wrought such havoc in Lower and Central Assam. The marshes that fringe the Brahmaputra are fit only for the cultivation of mustard and summer rice, but the central portion of Mangaldai is closely populated, and the subdivision supports 137 persons per square mile, as compared with 77 in the neighbouring subdivision of Tezpur. In 1904 there were in Mangaldai 26 tea gardens with 10,940 acres under plant, which

gave employment to 28 Europeans and 13,271 natives; but the tea plant does not thrive as well here as in Upper Assam. In the central portion the annual rainfall averages between 60 and 70 inches, while it is as much as 100 inches under the hills. The submontane tracts are chiefly inhabited by the Kāchāri tribe, who irrigate their rice-fields with water drawn from the hill streams; but artificial irrigation is not required in the central portion of the subdivision. The subdivision contains 783 villages, including Mangaldai, the head-quarters. The assessment of land revenue and local rates in 1903-4 was Rs. 4,01,000.

Mangalore Subdivision (*Mangalūru*).—Subdivision of South Kanara District, Madras, consisting of the MANGALORE *tāluk* and the AMINDĪVI ISLANDS.

Mangalore Tāluk.—*Tāluk* in the centre of South Kanara District, Madras, lying between 12° 48′ and 13° 13′ N. and 74° 47′ and 75° 17′ E., with an area of 679 square miles. It contains one town, MANGALORE (population, 44,108), the head-quarters; and 243 villages. The demand for land revenue and cesses in 1903-4 amounted to Rs. 5,82,000. The population was 334,294 in 1901, compared with 302,624 in 1891, showing an increase of 10·5 per cent. The density is high along the coast and in the fertile valleys of the Netrāvati and Gurpūr rivers, and averages 492 persons per square mile for the *tāluk* as a whole. The finest coco-nut gardens are, as usual, found along the backwaters, where also a considerable amount of sugar-cane is grown. The best areca gardens occur inland and near the Western Ghāts. Rice is the principal crop. Round Mangalore, near Bajpe and elsewhere, considerable quantities of 'dry grains,' chillies, turmeric, vegetables, and flowers are grown, chiefly by native Christians. The laterite plateaux in this *tāluk* are very extensive, notably that round MŪDBIDRI, and many of the hills round Mangalore have been stripped bare to supply the local market for firewood; but its deep valleys and outstanding bluffs and crags, with the ever-present towering background of the Ghāts, render its scenery unsurpassed.

Mangalore Town.—Administrative head-quarters of South Kanara District, Madras, situated on the shore of the Indian Ocean in 12° 52′ N. and 74° 51′ E. The population in 1901 was 44,108, of whom 25,312 were Hindus, 7,149 Musalmāns, and as many as 11,604 Christians. The town stretches for about 5 miles along the backwater formed by the Netrāvati and Gurpūr rivers. Viewed from the sea, or from any point of vantage, it presents the appearance of a vast coco-nut plantation, broken only here by some church spire and there by a factory chimney. The busy bazars are quite concealed from view.

Under various local chiefs, whether they aspired to independence

though the local Rājā, known as the Bangar chief, played his part in all the disturbances of the time. The Portuguese, attracted by trade, seized the town in A.D. 1596, and maintained a footing for the next two centuries with varying success. To Haidar, with his ambitious naval schemes, Mangalore was both strategically and politically important. On the fall of Bednūr he at once seized it (1763), and established dockyards and an arsenal. Captured by the British and abandoned in 1768, it was again taken by them in 1781. Surrendered to Tipū after an heroic defence by Colonel Campbell in 1784, it finally fell to the British in 1799.

Ibn Batūta mentions the commerce of Mangalore with the Persian Gulf as far back as 1342. It is now the centre of the commercial and industrial enterprise of the District. Tile-making, introduced by the Basel Mission, which has two factories in the town, is carried on by another European firm and nine native merchants as well; and the exports of tiles are valued at 3½ lakhs. The town also contains a well-known weaving establishment belonging to the Basel Mission, as well as a mechanical workshop of theirs, and three printing presses. Coffee is the chief article of export, the amount sent out being valued at 48 lakhs annually. It is all brought from Mysore and Coorg to Mangalore to be cured, an industry in which four European and three native firms are engaged. The other articles exported are areca-nuts and spices (11 lakhs), rice (8½ lakhs), and salted fish (2⅓ lakhs). The total value of the exports amounts to 86½ lakhs annually. Of the imports, valued at 39½ lakhs, piece-goods (5½ lakhs), salt (4¼ lakhs), grain and pulse (3½ lakhs), and liquor (2½ lakhs) are the most important items. Steamers and large vessels are obliged to anchor outside the backwater, but the Arabian buggalows and country craft, of which more than 2,000 enter annually, can cross the bar. Reclamations and improvements, including a pier and tramway, have lately been completed at the wharves at a cost of Rs. 70,000. The St. Aloysius College (first grade), founded by the Jesuit Mission in 1880, and the Government College (second grade) are the chief educational institutions. The former has an average attendance of 460 students, of whom 60 are reading in the college classes. Mangalore was constituted a municipality in 1896. The receipts and expenditure during the ten years ending 1902–3 averaged Rs. 48,600 and Rs. 48,200 respectively. In 1903–4 the corresponding figures were Rs. 66,400 and Rs. 63,000, the chief items in the receipts being the taxes on houses and land and a grant from Government. There are two municipal hospitals with 32 beds for in-patients, and also two private leper asylums. A drainage scheme for the western portion of the town, the estimated cost of which is Rs. 1,46,000, is under consideration. An extension of the Madras Railway from Kumbla to Mangalore (21 miles) will shortly be opened.

Mangalvedha.—Head-quarters of the subdivision of the same name in the State of Sāngli, Bombay, situated in 17° 31′ N. and 75° 29′ E., between the angle formed by the junction of the Bhīma and the Mān, about 13 miles south of Pandharpur and 15 miles north-east of Sāngli town. Population (1901), 8,397. Mangalvedha was founded before the Muhammadan period by a Hindu prince named Mangal, whose capital it was. Judging from the remains of an old temple, the place must have been of some importance and wealth. After its destruction by the Muhammadans, the materials were used in building the fort in the centre of the town. The town is administered as a municipality, with an income in 1903–4 of Rs. 4,000. The fort contains the Jāma Masjid and a citadel known as the Chauburji, said to have been built by the Pāndhres who were in charge of the *pargana* under the Sātāra Rājās (1720–50). The town contains a dispensary.

Māngaon.—Eastern *tāluka* of Kolāba District, Bombay, lying between 18° 6′ and 18° 30′ N. and 73° 3′ and 73° 26′ E., with an area of 352 square miles. There are 226 villages, but no town. The population in 1901 was 83,415, compared with 83,837 in 1891. The density, 237 persons per square mile, is much below the District average. The demand for land revenue in 1903–4 was 1·69 lakhs, and for cesses Rs. 10,000. The head-quarters are at Māngaon village. The Māndād river flows through the north and west of the *tāluka*, and the Ghod through the centre. Except in the south, the country is broken up by a number of detached hills. The rainfall during the ten years ending 1903 averaged 136 inches. Except in some of the western uplands, where the sea-breeze is felt, Māngaon is hot during the summer.

Manglaur.—Town in the Roorkee *tahsīl* of Sahāranpur District, United Provinces, situated in 29° 48′ N. and 77° 53′ E., 6 miles south of Roorkee town and close to the Upper Ganges Canal. Population (1901), 10,763. According to tradition, the town was founded by Rājā Mangal Sen, a Rājput feudatory of Vikramāditya, and the remains of a fortress attributed to him can still be traced. A mosque in the town was built by Balban in 1285. There is little trade; but the crops grown in the neighbourhood are irrigated from the canal and are exceptionally fine, and there is a great demand for manure. The place was formerly noted for carpentry. This industry, which had begun to decline, has now revived; and very good chairs and other articles are made. The Muhammadan weavers are much impoverished. Manglaur is administered under Act XX of 1856, with an income of about Rs. 3,500. Much has been done to improve its sanitary condition.

Manglön.—One of the Northern Shan States, Burma, lying astride the Salween, between 21° 31′ and 22° 54′ N. and 98° 20′ and 99°

the Wa States; on the east by the Wa States, China, and the Southern Shan States of Kengtung (from which it is separated by the Nam Hka river); on the south by Möngnawng; on the west by Möngnawng, Mönghsu, Kehsi Mansam, and South Hsenwi. The State proper is divided into East and West Manglön by the Salween; and the Sawbwa has control over the sub-States of Mothai in the extreme north and Mawhpa in the extreme south (both lying almost entirely east of the Salween), also of Manghseng on the left bank of the Salween, and Ngekting east of it. The country east of the Salween consists, in the south, of the broad mountain mass separating the valleys of the Salween and its important tributary the Nam Hka. The northern part is drained by short tributaries of the Salween, and is composed of steep hills and deep narrow valleys. West Manglön is a narrow strip of hill country, little wider than the ridge following the Salween river, and cut up by a number of narrow valleys.

The authentic history of Manglön begins about eighty years ago with the rise of a Wa chief, Ta Awng, who retained his hold on the State by becoming tributary to Hsenwi. At the time of annexation, trans-Salween Manglön was in charge of a Sawbwa named Tön Hsang, the cis-Salween territory being administered by the Sawbwa's brother, Sao Maha. Considerable difficulty was experienced by the British in dealing with the latter, who refused to attend the *darbār* at Möngyai in 1881. Acting under the influence of Sao Weng, the ex-Sawbwa of Lawksawk, he persistently refused to come in, and deserted his State in 1892 when a British party marched through it. Tön Hsang was then put in charge of West Manglön as well as of his own country east of the Salween, but had to suffer an attack by Sao Maha immediately afterwards. One more chance of reforming was given to the latter and he was then definitely expelled, and West Manglön has since remained undisturbed in Tön Hsang's charge. East Manglön has suffered from time to time from raids on the part of the independent Wa chiefs to the east, but the State as a whole is gradually settling down. The exact population is not known, as the State was wholly omitted from the census operations in 1901; but it is probably not below 40,000. The inhabitants of East Manglön and of the sub-States are mainly Was, the Shans being confined to the valleys; West Manglön is almost wholly Shan. Lisaws and Chinese are found on both sides of the Salween, and Palaungs in West Manglön. The capital, Taküt, is situated in the mountains of East Manglön, but some of the officials reside at Pangyang a few miles to the south. The revenue consists entirely of *thathameda*, amounting in 1903–4 to Rs. 11,000. Of this Rs. 4,200 went to the privy purse, and Rs. 4,200 towards administration and salaries, and Rs. 2,000 was spent on public works. The tribute to the British Government is only Rs. 500.

Mangoli.—Village in the Bāgevādi *tāluka* of Bijāpur District, Bombay, situated in 16° 40′ N. and 75° 54′ E., 15 miles south-east of Bijāpur town. Population (1901), 5,287. It was formerly the head-quarters of the Bāgevādi *tāluka*, but has now declined in importance. The country round Mangoli is very fertile, and the village exports a good deal of wheat, cotton, linseed, and *jowār*.

Māngrol (*Mangarol Bandar*, apparently the *Monoglossum* of Ptolemy) (1).—Seaport in the State of Junāgarh, Kāthiāwār, Bombay, situated in 21° 8′ N. and 70° 14′ E., on the south-west coast, a mile and a half north-east from the *bandar*, which is washed by the Arabian Sea. Population (1901), 15,016. The mosque here is the finest in Kāthiāwār. A tablet in one part of the building records the date of its foundation as 1383. The town belongs to a petty Musalmān chief, styled the Shaikh of Māngrol, who pays a tribute of Rs. 11,500 to the Nawāb of Junāgarh. The harbour is much exposed, being open to all but north-east and north-west winds, and will not admit more than three or four *kotiyehs* or native vessels at a time. Soundings are regular, over a muddy but rocky bottom, from one to one and a half mile off shore. There is a manufacture of ivory and sandal-wood inlaid boxes, and the ironsmiths are famous for their skill. The musk-melons grown here are celebrated. A lighthouse, 75 feet above high-water mark, shows a fixed light visible 4 miles at sea. The shrine of Kāmnāth Mahādeo, situated about 5 miles from the town, is visited annually on the 15th of the bright half of the month of Kārtik (November) and the last day of the dark half of the month of Shrāvan (August). There is a well at a distance of about 200 yards. The land surrounding this well forms a tract of about 5 or 6 miles in circumference, and is called Lābur Kua. Excellent cotton is grown here, which finds a ready sale in the Bombay market. Betel-vine plantations have been in existence for about thirty years.

Māngrol (2).—Head-quarters of the district of the same name in the State of Kotah, Rājputāna, situated in 25° 20′ N. and 70° 31′ E., on the right bank of the Bāngangā, a tributary of the Pārbati, about 44 miles north-east of Kotah city. The town is a commercial mart of some importance, with a population in 1901 of 5,156. It possesses a post office, a vernacular school, and a hospital with accommodation for six in-patients. Māngrol is the site of a battle fought in 1821 between Mahārao Kishor Singh of Kotah and his minister Zālim Singh, assisted by a detachment of British troops. The Mahārao was defeated, and his brother Prithwī Singh was killed. A mausoleum constructed where the body of the latter was burnt still exists close to the river, while to the east of the town are the tombs of two British officers (Lieutenants Clarke and Read of the 4th Light Cavalry) who fell in this engagement. Three miles to the south is the village of Bhatwāra,

where the Kotah troops defeated a much stronger army from Jaipur in 1761, and captured the latter's five-coloured banner. The valour and skill of Zālim Singh (then Faujdār of Kotah) contributed greatly to the victory, which put an end to Jaipur's pretensions to supremacy over the Hāra Rājputs. Ten miles to the west of Māngrol is the ancient village of Siswāli, said to have been founded by the Gaur Rājputs of Sheopur. The Chhīpas of the place carry on a fairly large trade in dyed cloths.

Mangrūl Tāluk.—Formerly a *tāluk* of Bāsim District, but since August, 1905, the south-eastern *tāluk* of Akola District, Berār, lying between 20° 4′ and 20° 80′ N. and 77° 9′ and 77° 42′ E., with an area of 630 square miles. The population rose from 82,446 in 1891 to 91,062 in 1901, its density, 144 persons per square mile, being the lowest in the District. The *tāluk* contains 202 villages and only one town, MANGRŪL PIR (population, 5,793). The demand for land revenue in 1903-4 was Rs. 1,68,000, and for cesses Rs. 13,000. The *tāluk* lies in the Bālāghāt, or southern plateau of Berār, and its most fertile tracts are those in the valleys of the streams running southwards to the Pengangā river.

Mangrūl Town (1).—Head-quarters of the *tāluk* of the same name, Akola District, Berār, situated in 20° 19′ N. and 77° 24′ E. Population (1901), 5,793. The town is distinguished from many other places of the same name by the epithet *Pīr*, which has reference either to the shrine of Hayāt Kalandar, or to the shrines of several minor saints buried here. The real name of Hayāt Kalandar is said to have been Shāh Badr-ud-dīn, and he was also known as Bābā Budhan and Saiyid Ahmad Kabīr. His native place is said to have been Bataih in Rūm (Asia Minor), and he is said to have died in 1253. The shrine at Mangrūl must therefore be a cenotaph; and it is believed not to be more than about four hundred years old. Of the minor saints buried here, none has any celebrity beyond the neighbourhood.

Mangrūl Town (2).—Town in the Chāndūr *tāluk* of Amraotī District, Berār, situated in 20° 36′ N. and 77° 52′ E. Population (1901), 6,588. The town is distinguished from other towns and villages of the same name by the epithet *Dastgīr*.

Maniar.—Town in the Bānsdīh *tahsīl* of Balliā District, United Provinces, situated in 25° 59′ N. and 84° 11′ E., on the right bank of the Gogra. Population (1901), 9,483. The houses of Maniar cluster round high artificial mounds, formerly the sites of the fortified residences of the principal *zamīndārs*, but now waste and bare. It has no main thoroughfares, nor does it possess any public buildings. Its importance is derived from its position as a port on the Gogra, through which rice and other grains are imported from Gorakhpur, Bastī, and Nepāl, while sugar and coarse cotton cloth of local manufacture

and oilseeds are exported to Bengal. Maniar is administered under Act XX of 1856, with an income of Rs. 1,500. There is a school with 50 pupils.

Manihārī.—Village in the head-quarters subdivision of Purnea District, Bengal, situated in 25° 20′ N. and 87° 37′ E., on the north bank of the Ganges. Population (1901), 3,759. It is a terminus of the Bihār section of the Eastern Bengal State Railway, connected by ferry steamer with the East Indian Railway station at Sakrigāli Ghāt, and a place of call for river steamers.

Manikarchar.—Village in the extreme south-west of Goālpāra District, Eastern Bengal and Assam, situated in 25° 32′ N. and 89° 53′ E., near the Gāro Hills frontier. Population (1901), 3,870. The village contains a large bazar, and a bi-weekly market, where a considerable trade is carried on in cotton and other products of the Gāro Hills, jute, and mustard. The principal merchants are Mārwāris from Rājputāna and Muhammadans from Dacca. The public buildings include a dispensary.

Mānikcherī.—Village in the Chittagong Hill Tracts, Eastern Bengal and Assam, situated in 22° 51′ N. and 91° 51′ E., on a stream of the same name. Population (1901), 1,356. It is the residence of the Mong Rājā.

Mānikganj Subdivision.—Western subdivision of Dacca District, Eastern Bengal and Assam, lying between 23° 37′ and 24° 2′ N. and 89° 45′ and 90° 15′ E., with an area of 489 square miles. The subdivision is a level alluvial plain, bounded on the west and south by the Padmā. The population in 1901 was 468,942, compared with 448,927 in 1891, the density being 959 persons per square mile. It contains 1,461 villages, but no town. Since 1861, when the town of Mānikganj was swept away by flood, the head-quarters have been at DASARA, a village 2 miles to the south of the old site. There is a large mart at Jāgīr Hāt, 2 miles from the subdivisional head-quarters.

Mānikiāla.—Village and group of ruins in the District and *tahsīl* of Rāwalpindi, Punjab, situated in 33° 27′ N. and 73° 17′ E., midway between Hassan Abdāl and Jhelum. Population (1901), 734. The remains consist of a great tope or *stūpa* south of the modern village, together with fourteen smaller buildings of the same class, fifteen monasteries, and many isolated massive stone walls. Local tradition connects these ruins with the name of an eponymous Rājā, Mān or Mānik, who built the great *stūpa*. According to the current legend, an ancient city named Mānikpur stood upon the site, inhabited by seven Rākshasas or demons. Rasālū, son of Salivāhana, Rājā of Siālkot, was the enemy of these demons, who daily devoured by lot one of the people of Mānikpur. Accordingly, Rasālū once took the place of the victim, went out to meet the demons, and slew them all

save one, who still lives in the cavern of Gandgarh. In this legend Sir Alexander Cunningham saw a Hinduized version of the Buddhist story, in which Gautama Buddha offers up his body to appease the hunger of seven tiger cubs. Hiuen Tsiang places the scene of this legend south-east of Shāhdheri, which agrees with the bearing of Mānikiāla from the latter ruins. At this spot stood the famous *stūpa* of the 'body-offering,' one of the four great *stūpas* of North-Western India. The *stūpa* was explored by General Court in 1834, and Cunningham states that the inscription on it twice makes mention of the sacrifice of Buddha's body. All the existing remains present the appearance of religious buildings, without any trace of a city or fortress. The people point to the high ground immediately west of the great *stūpa* as the site of Rājā Mān's palace, because pieces of plaster occur there only among the ruins; but the Satraps of Taxila may very probably have taken up their residence upon this spot when they came to worship at the famous shrine. A town of 1,500 or 2,000 houses may also have extended northward, and occupied the whole rising ground now covered by the village of Mānikiāla. But the place must be regarded as mainly an ancient religious centre, full of costly monasteries and shrines, with massive walls of cut stone. The people unanimously affirm that the city was destroyed by fire, and the quantity of charcoal and ashes found among the ruins strongly confirms their belief. Mānikiāla is one of the sites for which is claimed the honour of being the burial-place of Alexander's horse Bucephalus.

Māniktala.—Town in the District of the Twenty-four Parganas, Bengal, situated in 22° 35′ N. and 88° 23′ E. Population (1901), 32,387, of whom Hindus numbered 22,792, Musalmāns 9,512, and Christians 65. Māniktala is the great eastern industrial suburb of Calcutta, wedged in between the Circular Canal on the west, the New Cut on the east, and the Beliāghāta Canal on the south. Beliāghāta in the south of the town is the seat of an extensive trade in rice imported from the eastern Districts, while along the frontage of the Circular Canal a brisk business is done in firewood, loose jute, and rice. The other important wards are Ultādānga and Nārikeldānga. Factories are numerous, including a jute mill, a silk factory, bone-crushing mills, shellac, saltpetre, castor-oil, and soap factories, and four tanneries. The nursery gardens of two Calcutta florists are situated in the town, which is within the jurisdiction of the Commissioner of Police, Calcutta, and forms part of the 'Suburbs of Calcutta' sub-division. Māniktala was comprised in the Suburban municipality until 1889, when it was constituted a separate municipality. The income during the decade ending 1901–2 averaged Rs. 63,000, and the expenditure Rs. 59,000. In 1903–4 the income was Rs. 2,14,000, including a loan of Rs. 25,000 from Government, Rs. 31,000 derived

from a tax on houses and lands, Rs. 18,000 from a conservancy rate, and Rs. 7,000 from a tax on vehicles. The incidence of taxation was Rs. 2-1-10 per head of the population. In the same year the chief items of expenditure were Rs. 5,000 spent on lighting, Rs. 3,000 on drainage, Rs. 23,000 on conservancy, Rs. 1,800 on medical relief, Rs. 16,000 on roads, and Rs. 1,300 on education; total, Rs. 74,000.

Manipur. — Native State lying to the east of the Province of Eastern Bengal and Assam, between 23° 50′ and 25° 41′ N. and 93° 2′ and 94° 47′ E., with an area of 8,456 square miles. It is bounded on the north by the Nāgā Hills District and by hilly country inhabited by tribes of independent Nāgās; on the east by independent territory and Burma; on the south by Burma and the Lushai Hills; and on the west by the District of Cāchār. The State consists of a great tract of hilly country, and a valley about 30 miles long and 20 miles wide, shut in on every side. The general direction of these ranges is north and south, but in places they are connected by spurs and occasional ridges of lower elevation. The greatest altitude is reached to the north-east, about fifteen days' journey from the Manipur valley, where peaks rise upwards of 13,000 feet above sea-level. To the north of this the hills gradually decrease in height till they sink into the flat plains of the Assam Valley. Southwards, too, there is a gradual decline in altitude till the sea is reached near Chittagong and Arakan. The general appearance of the hill ranges is that of irregular ridges, occasionally rising into conical peaks and flattened ridges of bare rocks. Sometimes, as in the western ranges of hills overlooking the Manipur valley, the summit of the hills presents a more open and rolling character.

Physical aspects.

The journey through the hills from Cāchār to Manipur is one of great interest. The path crosses five considerable ranges, covered with forest and separated from one another by deep river valleys, and thus possesses all the attractions which are conferred by stately timber, luxuriant undergrowth of bamboos, creepers, and giant ferns, bold cliffs, and rivers rushing through wild gorges. The general appearance of the valley, as the traveller descends from the hills, has much to please the eye. On every side it is shut in by blue mountains. To the south the waters of the Loktak Lake sparkle in the sun, and all the country in the neighbourhood is covered with waving jungle grass. Farther east the villages of the Manipuris are to be seen buried in clumps of bamboos and fruit trees, and lining the banks of the rivers that meander through the plain. The jungle gives way to wide stretches of rice cultivation, interspersed with grazing grounds and swamps, and to the north-east are the dense groves which conceal the town of Imphal.

The principal rivers of the valley are the Imphal, Iril, Thobal,

Nambal, and Nambol. The last-named river falls into the Loktak Lake, from which it emerges under the name of Kortak. This stream eventually joins the Imphal and the Nambal, and their united waters, which are known as the Achauba, Imphal, or Manipur river, finally fall into the Kendat and thus into the Chindwin. The chief rivers crossed in the hills by the traveller from Cāchār are the Jiri, the Makru, the Barāk, the Irang, the Lengba, and the Laimatak. The Jiri, which forms the boundary between British territory and Manipur, is about 40 yards wide where it is crossed by the Government road, and is fordable in the dry season. The Makru, which runs parallel with the Jiri, has a very clear stream, and is also fordable in the dry season. The Barāk is the largest and most important river in the Manipur hill territory; it receives the Makru, the Irang, the Tipai river, which flows north from the Lushai country, and finally the Jiri. It is said to be navigable for canoes for about one day above its junction with the Tipai. The rivers in the plains are navigable by dug-out canoes at all seasons of the year. It was at one time thought that the Manipur valley originally consisted of a large lake basin, which gradually contracted in size until nothing remains but the Loktak, a sheet of water about 8 miles long and 5 miles wide, which occupies the south-eastern corner of the valley. Further investigations by competent geologists have shown that this hypothesis is not correct.

The soil of the valley is an alluvial clay washed down from the surrounding hills. The mountains to the north are largely composed of Pre-Tertiary slates and sandstones, with Upper Tertiary deposits on the higher ridges and on the hills overhanging the Chindwin valley.

The inner hills are clothed with forest, but the slopes of the Laimatol range, which overlook the valley on the west, are only covered with grass. In the valley itself there is little tree growth. A great portion of the plain is cultivated with rice, but near the Loktak Lake there are wide stretches of grass jungle.

Wild animals are fairly common, and include elephants, tigers, leopards, bears, deer, and wild hog. Rhinoceros and bison (*Bos gaurus*) are also found in the hills to the south-east, but are not common, and serow or goat-antelope are occasionally met with on the higher ranges. Hog, leopards, and deer are the only animals to be seen in large numbers in the plains. Elephants used at one time to be regularly hunted, but the herds have been considerably reduced in numbers, and these operations are no longer profitable. Large flocks of wild geese and ducks are to be found on the Loktak Lake, and partridge, pheasant, and jungle-fowl are common.

The valley lies about 2,500 feet above the level of the sea, and the climate is cool and pleasant. At the hottest season the nights and mornings are always cool. In the winter there are sharp frosts at

night, and heavy fogs often hang over the valley till the day is well advanced. The annual rainfall at Imphal town averages about 70 inches; in the hills it is believed to be as much as 100 inches.

Manipur, like the neighbouring Province of Assam, is subject to seismic disturbances. A severe shock occurred in 1869; but the earthquake of 1897, which did so much damage in other parts of Eastern India, was only slightly felt.

History.

The origin of the Manipurì people is obscure, and the written records, having been mainly composed since they became Hindus, are not worthy of credit. From the most trustworthy traditions, the valley appears originally to have been occupied by several tribes, which came from different directions. Although the general facial characteristics of the Manipuris are Mongolian, there is great diversity of feature among them, some showing a regularity approaching the Aryan type. The kingdom of Manipur first emerges from obscurity as a neighbour and ally of the Shan kingdom of Pong, which had its capital at Mogaung. The regalia of the royal family are said to have been bestowed by king Komba of Pong. The history of Manipur contains nothing of special interest until about A. D. 1714. In that year a Nāgā named Pānheiba became Rājā of Manipur, and adopted Hinduism, taking the name of Gharīb Nawāz. His people followed his example, and since that date have been conspicuous for the rigidity with which they observe the rules of caste and ceremonial purity.

Gharīb Nawāz made several successful invasions into Burma, but no permanent conquest. After his death, the Burmans invaded Manipur, and the ruler, Jai Singh, having sought the aid of the British, a treaty of alliance was negotiated in 1762. The force sent to assist Manipur was, however, recalled, and after this little communication passed between the British Government and the State for some years. On the outbreak of the first Burmese War in 1824, the Burmans invaded Cāchār and Assam, as well as Manipur; and Gambhīr Singh of Manipur asked for British aid, which was granted. A force of sepoys and artillery being sent towards Cāchār, and a levy of Manipuris being formed under British officers, not only were the Burmans expelled from the Manipur valley, but the Kubo valley down to the Ningthi river, situated to the east of the old boundaries, and peopled by Shans, was added to the State. In 1826 peace was concluded with Burma, and Manipur was declared independent. Until 1834, when Gambhīr Singh died, the country remained quiet and prosperous. On his death, his son being at the time only one year old, Nar Singh, his uncle and great-grandson of Gharīb Nawāz, was appointed regent. In 1834 the British Government decided to restore the Kubo valley to Burma, the government of which had never ceased to remonstrate against its

separation from that country. The valley was given back, and a new boundary laid down by an agreement dated January 9, 1834. The British Government at the same time bound itself to pay to the Rājā of Manipur an annual allowance of Rs. 6,370, in compensation for the loss of the Kubo valley. In 1835 a Political Agent was appointed to act as a medium of communication between the State and the British Government.

An unsuccessful attempt was made on Nar Singh's life in 1844, and the Rājā's mother, being implicated, fled with her son, Chandra Kīrtti Singh, to Cāchār. Nar Singh upon this assumed the throne, which he retained until his death in 1850. Debendra Singh, his brother, was then recognized as Rājā by the British Government. Three months afterwards, Chandra Kīrtti Singh invaded Manipur, and Debendra Singh, who was unpopular, fled towards Cāchār. Chandra Kīrtti Singh, having established his authority, was in February, 1851, recognized by the British Government; and though numerous attempts were made by other members of the royal family to head a rebellion, the leaders were all defeated, and either killed, imprisoned, or placed under surveillance in British territory. In 1879, when the Angāmī Nāgās killed Mr. Damant, the Deputy-Commissioner of the Nāgā Hills, and besieged the stockade at Kohīmā, the Mahārājā dispatched a force under Colonel Johnstone, the Political Agent, who raised the siege. In recognition of this service, the Government of India bestowed upon the Mahārājā the dignity of K.C.S.I. During the Burmese War of 1885, which ended in the annexation of king Thībaw's dominions, a small force under Colonel Johnstone succeeded in rescuing a number of British subjects and Europeans in Northern Burma. In the course of these operations the Political Agent was seriously wounded, and compelled to take leave; and his successor, Major Trotter, was shortly afterwards treacherously attacked near Tammu, and received a wound which caused his death two months later.

In 1886 Chandra Kīrtti Singh died, and was succeeded by his son, Sūr Chandra Singh. As on previous occasions, a series of attempts were made by other claimants to the throne to oust the lawful heir. The first two expeditions were led by Bora Chaoba Singh, a son of the Nar Singh who ruled Manipur from 1844 to 1850, but proved unsuccessful. Two more attempts were made in 1887, but the pretenders were defeated and killed and their followers dispersed. In September, 1890, two of the Mahārājā's brothers attacked the palace, and Sūr Chandra Singh fled to the Residency for protection. He then announced his intention of resigning the throne, and left Manipur for Cāchār *en route* for Brindāban. His younger brother, Kula Chandra Singh, proclaimed himself Mahārājā, though the real power seems to have lain in the hands of his brother Tikendrajīt Singh, who was Senāpati, or commander-in-chief of the Manipur forces.

On reaching British territory, Sūr Chandra Singh repudiated his abdication, and applied for help. It was decided that the Jubrāj, Kula Chandra Singh, should be recognized as Mahārājā, but that the Senāpati should be removed from the State and punished for his lawless conduct; and the Chief Commissioner was directed to visit Manipur early in March, 1891, to give effect to these orders. Mr. Quinton was accompanied by an escort of 400 men from two Gurkha battalions, which, in addition to the Political Agent's guard of 100 men, was thought sufficient to check any attempt at opposition. After much deliberation, the Chief Commissioner determined to hold a *darbār*, at which the orders of the Government of India were to be announced and the Senāpati arrested. The latter, however, refused to appear, and it was decided to arrest him on March 24. Troops were accordingly sent to his house, but were attacked, and Lieutenant Brackenbury, one of the officers in command, was killed. Fighting went on throughout the day, but at evening an armistice was agreed to and the Senāpati invited the Chief Commissioner to meet him. Mr. Quinton, accompanied by other British officers, proceeded to the rendezvous and then into the fort, where they met the Senāpati, but no agreement was concluded. As the party were leaving, their way was barred, Mr. Grimwood was fatally speared, and Lieutenant Simpson severely wounded. Mr. Quinton and the officers with him were detained for two hours, and were then marched out to an open space, and beheaded by the public executioner. The attack upon the Residency was renewed, but after a short interval the British force drew off towards Cāchār, which they reached without serious misadventure. The Superintendent of Telegraphs, Mr. Melvill, who had left Imphal for Kohīmā before the outbreak, was pursued by the Manipuris, and both he and a European signaller who accompanied him were killed.

As soon as news of the disaster was received at Kohīmā, the Deputy-Commissioner marched down the road to the Manipur boundary and drove back the rebels. Lieutenant Grant also advanced from Tammu with 80 men to within 14 miles of the capital, but was unable to proceed farther and was recalled. Three British columns entered the State from Burma, Cāchār, and the Nāgā Hills, and arrived before the palace on April 27, to find that the Jubrāj and the Senāpati had taken flight. They were, however, captured; and the Senāpati and several of the actual murderers were tried and hanged, while Kula Chandra Singh and the other ringleaders were deported to the Andamans. Chura Chand, a boy belonging to a collateral branch of the royal house, was then placed on the *gaddi*. During his minority the State has been administered by the Political Agent, and numerous reforms have been introduced. In 1907 the young Mahārājā, who had been educated at the Ajmer College, was formally installed.

The disturbances of 1891 led to an outbreak of lawlessness among the hill tribes subject to Manipur. No less than eight raids were committed by various villages on one another within the year, in the course of which 104 lives were lost. Murders along the road running from Manipur to Kohīmā were common; and in 1893 the Nāgā village of Swemi was raided by Kūkis, who professed to have been incensed at the failure of the Nāgās to compensate a Kūki chief for an alleged theft of rice. The attack was delivered at dawn, and 99 men and 187 women and children were put to the sword. In 1901 the State was visited by Lord Curzon as Viceroy, on his way from Cāchār to Burma.

Population.

The first Census of Manipur, which was taken in 1881, disclosed a population of 221,070. The census papers of 1891 were destroyed in the rising that took place in that year. The population in 1901 was 284,465, giving a density of 34 persons per square mile. The whole of this increase was due to natural growth, there being practically no immigration into the State. Women exceed men in numbers. They enjoy a position of considerable importance, and most of the trade of the valley is in their hands. Of the population in 1901, 60 per cent. were Hindus, and 36 per cent. aboriginal tribes still faithful to their own primitive forms of belief. Muhammadans formed nearly 4 per cent. of the whole. Manipurī is the ordinary language of the valley, and was returned by 64 per cent. of the population, but in the hills Nāgā (21 per cent.) and Kūkī (14 per cent.) are the common forms of speech. The State contains one town, IMPHAL (population, 67,093), and 467 villages.

The mass of the Hindu population describe themselves as members of the Kshattriya caste (161,000), though the Manipuris have been converted within comparatively recent times to Hinduism; the majority of the remainder are Brāhmans.

The hill tribes fall into two main sections, Kūkis and Nāgās. Kūki is a generic term applied to tribes whose home is in the mountainous tract lying between Burma, Manipur, Cāchār, and Arakan. These tribes have been steadily moving northwards, and have crossed the Cāchār and Manipur valleys and settled in the hills beyond. The total number of Kūkis in the State in 1901 was 41,000. The hills that surround the valley are inhabited by various tribes of Nāgās (59,000), of whom the Tankuls (20,000) are the best known. The men of this tribe, when working in the fields or on the roads, are often stark naked except for a small bone ring, through which the foreskin is drawn. Other Nāgā tribes are the Kabui, Koirao, and Maring. The Lois are a low caste, not even dignified by the name of Hindu. They are probably descended from one of the hill tribes, but under native rule the degradation of a Hindu Manipuri to the class of Loi was a not uncommon form of punishment. Agriculture is the main occupation of the people.

The soil of the valley is a reddish clay of considerable depth, which is enriched every year by deposits of silt from the rivers, and yields luxuriant crops of rice. The system of cultivation does not differ materially from that followed in the plains of Assam. The staple crop is rice, of which there are two main kinds: one sown on high land in March or April and cut in July or August; and the other sown in April to June, transplanted about two months later into beds of liquid mud, and reaped in December. Most of the rice grown belongs to the second, or transplanted variety. Other crops include mustard and sugar-cane, which do extremely well, pulses of various kinds, and tobacco. The poppy is cultivated to a small extent by Muhammadans. English vegetables are grown in the cold season, and oats and wheat have been tried with success. Fruit trees include oranges, limes, pine-apples, plantains, jack-fruit, and mangoes. The last are injured by the worm, which also ruins this fruit in Assam. Various kinds of English fruit trees have been tried, but have not proved successful. The areca palm does not grow in Manipur, and large quantities of the nut are, in consequence, imported from Cāchār. The rainfall renders any general system of irrigation unnecessary, but when the rivers rise small channels are often cut to bring water to the fields.

Agriculture.

Most of the hill tribes practise the *jhūm* system of cultivation. Jungle is cut down and burned, and seeds are sown among the ashes. The crops thus grown include hill rice, cotton, pulses, pepper, tobacco, ginger, vegetables of various kinds, potatoes, and maize. The same *jhūm* is seldom cropped for more than two years in succession, and is then allowed to lie fallow for as long a time as possible, the minimum period of rest being four years. The Tankul Nāgās, who live in the hills east of the valley, grow transplanted rice. The sides of the hills are cut out into a succession of terraces, built up with stone retaining walls, over which the water from the hill streams is distributed through small irrigation channels. It is from this tribe that the Angāmī Nāgās are said to have learned the art of terracing the hill-sides. The advantages of the system are twofold. It enables the villagers to obtain their supplies from fields close to their own homes, while the grain raised is of a better quality than that grown in the *jhūms*.

It is impossible to trace the extension of cultivation, as an accurate system of land measurement has only recently been introduced. A strong stimulus has, however, been given to agriculture by the construction of the cart-road through the hills to the Assam Valley, and by the completion of the railway line from Gauhāti to Dimāpur; and there is now a large export of rice along this route.

The cattle are strong, hardy little animals, and when exported outside the State command a ready sale. There is abundance of excellent

grazing in the rich grass of the *jhīls*, and the live-stock of the farm are carefully tended by their owners. The cows, like those of Assam, are poor milkers. The buffaloes are much superior to those imported into the Surmā Valley from Bengal. The Manipuri ponies are well-known. They do not, as a rule, stand as much as 12 hands high, but they have remarkable endurance, courage, and speed. Unfortunately, the mares have been recklessly sold, and many were carried away after the expedition of 1891. Good ponies in consequence are now very scarce, and there is serious risk of the breed disappearing. In 1839 an Arab stallion and 8 mares were supplied to the Rājā, but the climate did not suit them and their progeny soon died out.

Forests.

The whole of the hill ranges lying between the valleys of Cāchār and Manipur, and far to the north and south, are densely clothed to their summits with tree jungle. Almost the only exceptions to this are the hill slopes facing the Manipur valley, which have been denuded of timber. The trees are of great variety, and in the ranges lying west of the Manipur valley large tracts contain *nahor* (*Mesua ferrea*), *jarul* (*Lagerstroemia Flos Reginae*), india-rubber, *tūn* (*Cedrela Toona*), oak, ash, &c. Bamboo jungle is everywhere plentiful. Towards the north, in the valleys dividing the hill ranges from one another, the trees attain an immense size and height; and where this kind of forest exists the bamboo is uncommon. The tea plant is found wild in the Hirok range between Manipur and Burma, and on the hills to the north. Teak is common on the slopes overlooking the Kubo valley. There are fine pine forests in the Tankul hills and on the ranges which stretch northward to the Lanier river. Rubber used formerly to be obtained in considerable quantities, but most of the trees have been killed by excessive and improper tapping. The forests lying between Manipur and Cāchār are worked by the Assam Forest department, which retains 25 per cent. of the profits.

Rents are usually paid in kind, the ordinary rate being about $4\frac{3}{4}$ cwt. of unhusked rice per acre. The rate of wages for unskilled labour is 4 annas a day. Owing to difficulties of transport, the price of rice is low. The opening of the cart-road has developed a considerable export trade to the Assam Valley, but in spite of this common rice is often sold for less than a rupee a maund.

The valley and the surrounding hills have not yet been sufficiently explored for their mineral resources to be fully known. There are patches of coaly matter in the Kassom ridge, but experts are of opinion that there is little hope of discovering workable coal in these hills. Iron is found in the shape of small pisolitic nodules of hydrated oxide of iron, covered with alluvial deposits to the depth of 4 or 5 feet. At Kakching, to the south of the valley, the ore is dug up, smelted, and made into *daos* and farm implements. At Hundong, near Ukrul, and

at Palel, limestone deposits are worked for the use of the State. A large part of the salt used in Manipur was formerly obtained from the brine wells which exist in the valley and in the adjoining hills, but since the opening of the cart-road Liverpool salt has to a great extent succeeded in ousting the home-made article. The only other mineral of interest is an unctuous clayey rock found in a small hill to the left of the main road leading northwards from Imphal town. This rock is believed to possess medicinal properties and is eaten by the people.

Trade and communications.

Silk is obtained from a worm that feeds on the mulberry. The climate and soil of Manipur are favourable to the growth of this tree, and a European firm has recently submitted proposals, which, if accepted, will lead to the investment of a large sum of money in sericulture. The rearing of the silkworm is at present confined to the degraded class of Manipuris known as Lois, a fact which in itself is enough to account for the stagnation of the industry. A certain amount of rough pottery is manufactured, and the Manipuris make the simple agricultural implements they require, and brass and metal vessels. The supply of these commodities does not, however, equal the demand, and has to be supplemented by imports from other parts of India. The people manufacture neat cane baskets and reed mats, and are fairly expert carpenters and wood-carvers. Native jewellery is also made, but the designs are rough, and possess little artistic merit. The skins of deer and calf are tanned, and saddles, shoes, belts, pouches, and other articles are manufactured. This leather is often tastefully enamelled in black.

The internal trade of the State is carried on at markets which are held in the neighbourhood of the larger villages. Two large markets are held daily at Imphal, at which the principal articles offered for sale are cotton and silk cloths and wearing apparel, pillows, rugs, Nāgā cloths, dried and fresh fish, vegetables, rice, reed mats, oil, and treacle. Almost all the business is transacted by the women, who are shrewd and capable, the men thinking it beneath their dignity to come and traffic at the bazar. Very frequently no money changes hands, but goods are exchanged by barter. External trade is carried on with Kohīmā and the Assam Valley, with Cāchār, and to a small extent with Burma. The principal exports are rice, which goes by cart to Kohīmā and to the Assam-Bengal Railway at Dimāpur; and forest produce, which is carried down the Barāk into Cāchār. At one time there was a brisk trade in tea-seed, a considerable quantity of which came from Burma and merely passed through Manipur. The trade has, however, been killed by the depression in the tea industry, which has checked any tendency to extend the area under cultivation, and by the unscrupulous conduct of the contractors, who injured the repu-

tation of Manipur seed by plucking and selling it before it was ripe. Cattle and buffaloes are exported in considerable numbers, but restrictions are from time to time imposed to prevent the State from being denuded of its live-stock. The principal articles of import are mineral oil, betel-nuts, dried fish, salt, and cotton piece-goods and yarn. Dried fish, oil, and tea-seed come from the Burma frontier, but the bulk of the State trade is with Assam. Although the Manipuri women are keen and energetic shopkeepers, most of the wholesale business is in the hands of the Mārwāri merchants, who have practically monopolized the trade of Assam. The dealers in cattle and forest produce are generally Muhammadans from the Surmā Valley.

The most important line of communication in the State is the cart-road from Manipur through the Nāgā Hills, which meets the Assam-Bengal Railway at Dimāpur; 67 miles of this road lie in State territory. The gradients are very easy, and commodious resthouses have been erected at convenient stages; but as the road is unmetalled, it is practically closed for cart traffic during the rains. Excellent bridges, which for the most part are of solid masonry, have been thrown across all the rivers. There is a good bridle-path from Cāchār to Imphal, which passes over the five ranges dividing the State from British territory. Altogether twelve wire suspension bridges have been erected along this route, while the Jiri is crossed by a ferry. A third road leaves the valley to the south, and passing through Tammu reaches the valley of the Chindwin in Upper Burma. The first 29 miles are fit for wheeled traffic, but after this point the gradients become very steep, and in places riding is barely possible. Numerous driving roads in the valley are kept up by the State, each village being held responsible for the repair of a certain section. These roads resemble those found in Assam, and consist of earthen embankments raised above the level of the rice-fields. They are unmetalled, and thus incapable of carrying much cart traffic in the rains, so that at this season of the year the rivers are used for the transport of produce. The only boats employed are canoes hollowed out of the trunks of trees. Three lines of post leave Imphal—to Tammu, to Kohīmā, and to Silchar. The first two are maintained by the State, the last by the Assam Administration.

Famine.

No famine has occurred in Manipur for many years, though a poor harvest sometimes causes a slight scarcity. Prior to the construction of the cart-road, it was almost impossible to export grain from the State, and there was nearly always a large supply in hand. These stocks have now been to some extent depleted, and a complete failure of the harvest would be attended by serious results, as it would be impossible to throw much grain into the valley. The chances of a serious famine occurring are, however, slight.

The State has never been divided into any minor administrative

units. Since 1891 it has been administered by a Political Agent, as the Rājā who was placed on the *gaddi* after the outbreak is still a minor. A junior member of the Assam Commission is usually deputed to act as Assistant to the Political Agent. The Medical officer in charge of the regiment at Manipur discharges some of the functions of a Civil Surgeon, and public works are carried out by the State Engineer. The land records establishment is in charge of a Sub-Deputy-Collector lent by the Assam Government.

Administration.

Petty civil and criminal cases are tried by *panchāyat* courts sitting at Imphal and at nine places in the valley, which can impose sentences of fine but not of imprisonment. Appeals lie from these courts to the Chirap, a court sitting at Imphal, which exercises the ordinary powers of a first-class Magistrate. The Superintendent of the State hears appeals from the Chirap, and is invested with powers of life and death subject to confirmation by the Chief Commissioner. He also hears all cases in which hillmen are concerned. Civil and criminal cases to which European British subjects are a party are tried by the same officer in his capacity as Political Agent, or by his Assistant. Serious crime is not common, except among the hillmen, whose sense of the sanctity of human life is still somewhat undeveloped. Since the administration of the State has been placed upon a more satisfactory basis, raids upon villages have happily become less common; but murders, though not on such a wholesale scale, still take place. Civil suits are generally of a petty character.

Under native rule, the ryots paid revenue in kind and labour. Officials, instead of receiving salaries in cash, were remunerated by allowances in land and rice; and public buildings, bridges, and roads were constructed or repaired by unpaid labour. Since the administration has been controlled by the British, the system of forced labour has been almost entirely abolished, and land revenue has been assessed at the rate of Rs. 2 per acre. The valley has been divided into five divisions or *pannahs*, each in charge of a collecting officer. A survey establishment has been organized, and the occupied area is being gradually measured, the result of these operations being to disclose a large area of unassessed cultivation. House tax is levied in the hills, and no attempt is made to ascertain the area actually under cultivation.

There are practically no excise arrangements in the State. The Manipuris abstain from both liquor and intoxicating drugs. A little opium is used by Muhammadans; and the hill tribes prepare alcoholic liquors, both fermented and distilled, but no restriction is placed upon this practice. Salt is obtained from brine wells leased from the State, and is also imported from Bengal in considerable quantities.

The total revenue and expenditure of the State in 1903-4 and the

principal items were as follows, in thousands of rupees. Receipts: total, 3,95; including land revenue 2,77, house-tax 46, fisheries 24, forests 26, salt 6. Expenditure: total 3,88; including State works 1,48, Rājā's civil list 50, police 60, tribute 50, land revenue 28, education 15.

A police station at Imphal town is the centre of the whole investigating agency. The civil police force consists of 19 men under a sub-inspector. In addition to the regular police, one *chaukīdār* has been appointed to every hundred houses. A battalion of military police is kept up by the State. The Assistant to the Political Agent acts as commandant, and the sanctioned strength is 13 native officers and 364 non-commissioned officers and men. Thirteen outposts along the main roads and in the hills are held by this force. There is one jail in the valley, at Imphal.

Education has made very little progress in Manipur. At the Census of 1901 only 1·9 per cent. of the male population was returned as literate. An English middle school is maintained at Imphal; and in 1903–4 there were 29 primary schools in the State, two of which are located in the hills. The total number of pupils on March 31, 1904, was 1,629. All except 46 of these were reading in primary schools. The girls' school has recently been closed, as it was considered that the advantages it conferred were out of all proportion to the cost of its maintenance.

There is one hospital at Imphal town, with accommodation for 14 in-patients. In 1904 the number of cases treated was 10,000, of which 300 were in-patients, and 400 operations were performed. The total expenditure amounted to Rs. 4,000.

Vaccination is not compulsory, but the Kūkis are the only inhabitants of Manipur who object to the process, and even their dislike is wearing off. The number of successful vaccinations in 1903–4 represented 58 per 1,000 of the population, which was considerably above the proportion in Assam as a whole.

[E. W. Dunn, *Abridged Gazetteer of Manipur* (Calcutta, 1891); Dr. R. Brown, *Annual Report of the Manipur Political Agency for* 1868–9; Sir J. Johnstone, *My Experience in Manipur and the Nāgā Hills*; B. C. Allen, *Gazetteer of Manipur* (1905).]

Manjarābād.—Western *tāluk* of Hassan District, Mysore, lying between 12° 40′ and 13° 3′ N. and 75° 33′ and 75° 57′ E., with an area of 438 square miles. The population in 1901 was 59,304, compared with 55,862 in 1891. The *tāluk* contains one town, Sakleshpur (population, 2,140), the head-quarters; and 277 villages. The land revenue demand in 1903–4 was Rs. 1,78,000. The whole *tāluk* lies in the Malnād, and contains some of the finest scenery in Mysore, flanked by the stupendous mountain range of the Western Ghāts,

whose slopes are covered with magnificent forest. The Hemāvati flows through the east, and, after receiving the Aigūr and Kotehalla, turns east along the southern border. East of this river the country is more open. Streams from the Western Ghāts run west to the Netrāvati in South Kanara. The soil on the hills is generally a rich red, in the valleys red or nearly black. The principal cultivation is rice, which grows luxuriantly in the valleys and on the terraces cut on the hill-sides. The abundant rain makes irrigation unnecessary as a rule. 'Dry' cultivation is found to the east of the Hemāvati. In the west *rāgi* is grown in small patches once in two or three years, or at longer intervals. During the past half-century coffee cultivation has spread over the whole *tāluk*, and through the investment of European capital and the settlement of European planters has changed the face of the country, revolutionizing its old feudal customs. Cardamoms are also grown on the Ghāts.

Manjeri.—Village in the Ernad *tāluk* of Malabar District, Madras, situated in 11° 7′ N. and 76° 7′ E. Population (1901), 4,000. It is the head-quarters of the *tahsīldār*, of a stationary sub-magistrate, and of a District Munsif, and is notable as the scene, in 1849, of one of the worst of the Māppilla outrages. The native troops sent against the rioters were routed and Ensign Wyse was killed. Another outbreak occurred here in 1896, when 99 fanatics were shot.

Mānjha.—A tract of country in the Lahore and Amritsar Districts of the Punjab, lying between 30° 52′ and 21° 35′ N. and 73° 45′ and 75° 21′ E., and forming a portion of the uplands of the Bāri Doāb. In shape it is, roughly speaking, a triangle, whose base may be taken as the grand trunk road crossing Lahore and Amritsar Districts from the Rāvi to the Beās, and whose sides are the high banks marking the ancient courses of those rivers. From the point where the Beās now joins the Sutlej, the old Beās bank diverges from the present course of the Sutlej and approaches the old bed of the Rāvi near the borders of Montgomery District. This is the apex of the Mānjha, for, though the upland ridge is continued as far as Multān, from this point it bears the name of the Ganji Bār. Before the construction of the Bāri Doāb Canal the Mānjha was an ill-watered and infertile expanse, described by the Settlement officer of Lahore in 1854 as a jungle in which only the poorer cereals and pulses could be grown. Now, however, the Bāri Doāb Canal runs through the whole length of the tract, which is second in fertility to none in the Province. The Sikhs of the Mānjha are some of the finest specimens of the Jat race, and the tract is one of the most important recruiting grounds for Sikh regiments. The expression 'Sikhs of the Mānjha' is, however, sometimes loosely used to denote all Sikhs recruited north of the Sutlej. Punjābi of the Mānjha is the phrase used to express the dialect of Punjābi spoken

in and about the Mānjha, as contrasted with Western Punjābi, the Punjābi of the submontane tract, the Punjābi of the Jullundur Doāb, and Mālwā Punjābi, or that spoken south of the Sutlej.

Mānjhand.—Town in the Kotri *tāluka* of Karāchi District, Sind, Bombay, situated in 25° 55′ N. and 68° 17′ E., close to the Indus, on the North-Western Railway, 43 miles north of Kotri. Population (1901), 2,862. Coarse cloth and shoes are manufactured here. The municipality, which dates from 1856, had an average income during the decade ending 1901 of Rs. 2,400. In 1903–4 the income was also Rs. 2,400. The town contains one boys' school, with an average daily attendance of 92 pupils.

Manjhanpur.—South-western *tahsīl* of Allahābād District, United Provinces, comprising the *parganas* of Karārī and Atharban, and lying north of the Jumna, between 25° 17′ and 25° 32′ N. and 80° 9′ and 81° 32′ E., with an area of 272 square miles. Population fell from 131,688 in 1821 to 129,798 in 1901. There are 269 villages and one town, Manjhanpur (population, 3,221). The demand for land revenue in 1903–4 was Rs. 2,38,000, and for cesses Rs. 38,000. The density of population, 477 persons per square mile, is considerably below the District average. A high cliff scored by deep ravines borders the Jumna. The upland country beyond is at first sandy, but contains small *jhīls* used for irrigation, the largest being the Alwārā *jhīl*. The soil then changes to the ordinary fertile loam of the Doāb, where wells supply most of the irrigation. In 1903–4 the area under cultivation was 180 square miles, of which 51 were irrigated. The Fatehpur branch canal supplies about one-fourth of the irrigated area; and tanks or *jhīls* and wells the remainder in almost equal proportions.

Mānjra.—River of Hyderābād State, rising on the plateau of Pātoda in Bhīr District. After flowing through or along the Districts of Osmānābād, Bīdar, and Medak, generally in a south-eastern direction, it takes a sudden turn 10 miles east of Kalabgūr in the last-named District and thence flows almost due north, forming the boundary between Nānder and Indūr Districts, till it joins the Godāvari from the right near Kondalwādi, after a course of 387 miles. During its course it receives the Tirnā on the right bank in the Nilanga *tāluk* of Bīdar District, and 18 miles farther down, the Karanja on the same side. In Nānder two smaller streams, the Lendi and the Manār, join it on the left bank. The banks of the Mānjra are nowhere steep, and are earthy. Several ferries are maintained, and its waters are largely used for irrigation. Two new projects, known as the Mānjra and the Mānjra Extension, which are in course of construction, comprise extensive schemes for irrigating lands in Medak District.

Mānkachar.—Trade centre in Goālpāra District, Eastern Bengal and Assam. *See* MANIKARCHAR.

Mānkarnācha.—Highest peak in the Orissa State of Bonai, Bengal, situated in 21° 47′ N. and 85° 14′ E., and rising to a height of 3,639 feet above sea-level.

Mankerā.—Village in the Bhakkar *tahsīl* of Miānwāli District, Punjab, situated in 31° 23′ N. and 71° 27′ E. It lies in the heart of the Thal, the desert of the Sind-Sāgar Doāb. A large fort, said to have been founded by the Siāls of Jhang, still exists in the village. Mankerā was once the great stronghold of the Jaskāni Baloch, who in the beginning of the seventeenth century held the country from the Indus to the Chenāb, and from Bhakkar to Leiah on the Indus. They appear to have lost Mankerā to the Bhangi Sikhs about 1772, but to have soon recovered it. In 1792 it became the capital of the Pathān Nawāb, Muhammad Khān Sadozai, who governed the Sind-Sāgar Doāb, and subsequently also Dera, for the Durrāni kings of Kābul, Bhakkar being his second capital. Muhammad Khān gradually became independent, and was not molested by the Sikhs; but after his death in 1815 Ranjīt Singh invaded his territories, and in 1821 took Mankerā by siege. Mankerā then became the seat of a Sikh governor, and at the annexation of the Punjab was made the head-quarters of a *tahsīl* till 1853-4.

Manki.—Village in the Honāvar *tāluka* of North Kanara District, Bombay, situated in 14° 11′ N. and 74° 32′ E. Population (1901), 6,008. The remains of several Jain temples point to the fact that Jain influence was formerly paramount in Manki, while several inscriptions show that the place was once of considerable importance. A dilapidated fort on the coast is traditionally reported to have been the former stronghold of the Karagars (now a degraded class); but more probably it was held on behalf of the rulers of Vijayanagar by the Sheorogars, a class claiming Kshattriya descent, who are more numerous in Manki than in any other part of the District. After the fall of Vijayanagar, Manki was possessed by the chiefs of Bednur and eventually passed into the hands of Hyder Alī. The downfall of Tipū added it with the rest of Kanara to British territory. Manki contains three old Hindu temples of uncertain date. It formerly possessed a large export trade in rice, raw sugar, and coco-nuts; but at present the annual imports amount to only Rs. 1,270 and the exports to Rs. 180.

Mānkur.—Village in the head-quarters subdivision of Burdwān District, Bengal, situated in 23° 26′ N. and 87° 34′ E. Population (1901), 7,206. Mānkur is a station on the chord-line of the East Indian Railway, 90 miles from Calcutta, and has a considerable trade; it is also a local seat of the silk-weaving industry. The Church Missionary Society maintains a medical mission, at which 11,000 patients were treated in 1901.

Manmād.—Town in the Chāndor *tāluka* of Nāsik District, Bombay, situated in 20° 15′ N. and 74° 26′ E., on the north-eastern line of the Great Indian Peninsula Railway. Population (1901), 7,113. Manmād is the junction of the Dhond-Manmād State Railway with the Great Indian Peninsula Railway, and also the starting-point of a metre-gauge railway to Hyderābād. Much cotton from Khāndesh and Mālegaon is carried by rail here. A remarkable pyramidal hill near Manmād, about 750 feet high, is notable for a tall, obelisk-like rock on its summit, at least 60 feet high, known locally as Rām-gulhni. At the back of this hill are the peaks known as Ankai and Tankai. The town contains an English school and two dispensaries, one of which is maintained by the Great Indian Peninsula Railway.

Mannārgudi Subdivision.—Subdivision of Tanjore District, Madras, consisting of the *tāluks* of MANNĀRGUDI and TIRUTTURAIPPŪNDI.

Mannārgudi Tāluk.—Central *tāluk* of Tanjore District, Madras, lying between 10° 26′ and 10° 48′ N. and 79° 19′ and 79° 38′ E., with an area of 301 square miles. The population in 1901 was 188,107; and this has remained practically stationary since 1891, when it was 188,112. It contains 193 villages, besides the municipal town of MANNĀRGUDI (population, 20,449), the head-quarters. The demand for land revenue and cesses in 1903-4 amounted to Rs. 6,28,000. The south-western part of the *tāluk* is unirrigated, while the remainder lies within the Cauvery delta, though it contains no alluvial soil.

Mannārgudi Town (also called *Mannārkovil* or *Rājā Mannārkovil*).—Head-quarters of the *tāluk* of the same name in Tanjore District, Madras, situated in 10° 40′ N. and 79° 27′ E., on the bank of the Pāmaniyār river, 9 miles south of the railway station of Nīdāmangalam. The population in 1901 was 20,449, of whom 651 were Musalmāns, 540 Christians, and 153 Jains, the rest being Hindus. This is one of the centres of the Wesleyan Mission, which maintains a second-grade college, called the Findlay College, affiliated to the Madras University in 1898. The average attendance in the advanced classes during 1903-4 was 58, and in the lower classes 533. In addition, a high school is maintained by private agency. Mannārgudi was constituted a municipality in 1866. The receipts and expenditure during the ten years ending 1902-3 averaged Rs. 27,000, and in 1903-4 amounted to Rs. 29,000. The chief sources of income are tolls, and house and land taxes. A channel from the Vadavār, about 12 miles long, supplies twenty-two tanks in the town with good water. Mannārgudi is noted for the manufacture of metal ware and cloths, and exports rice in large quantities. Of the many temples in the town, the most important is that to Rājagopālaswāmi, which was founded by Kulottunga Chola I in the eleventh century. Two other shrines bear

Chola names and inscriptions of Chola, Pāndya, and Hoysala kings. Mannārgudi itself was formerly called Rājādhirājā Chaturvedimangalam, obviously a name of Chola origin. An old Jain temple stands in the town, and a mile to the west is a ruined fort said to have been built by a Hoysala king.

Manne.—Village in the Nelamangala *tāluk* of Bangalore District, Mysore, situated in 13° 15′ N. and 77° 18′ E. Population (1901), 748. Under the name of Mānyapura it was the residence of the Ganga kings in the eighth century. It was taken by the Cholas at the beginning of the eleventh century. The city is said to have extended over 8 miles to the east, but only some ruins of temples now remain.

Manohar (*Manohargarh*).—Fort in the State of Sāvantvādi, Bombay, situated in 16° N. and 74° 1′ E., 14 miles north-east of Vādi, and on the south of the Rāngna pass. Manohar is a solid mass of rock about 2,500 feet high, said to have been fortified since the time of the Pāndavas. In the disturbances of 1844 the garrison of Manohar espoused the cause of the Kolhāpur insurgents. In the beginning of 1845 the fort was taken by General Delamotte.

Manoharpur.—Chief town of an estate of the same name in the Sawai Jaipur *nizāmat* of the State of Jaipur, Rājputāna, situated in 27° 18′ N. and 75° 57′ E., about 28 miles north-by-north-east of Jaipur city. The holder of the estate is termed Rao, and serves the Darbār with 65 horsemen. The population in 1901 was 5,032. The town contains a fort, and a primary school attended by 60 boys.

Manoli.—Town in the Parasgad *tāluka* of Belgaum District, Bombay, situated in 15° 51′ N. and 75° 7′ E., 42 miles east of Belgaum town. Population (1901), 5,308. Manoli had a once considerable, but now declining, industry in dyeing yarns. It is famous as the spot where General Wellesley, afterwards the Duke of Wellington, overtook the notorious freebooter Dhind-deva Wāgh (better known as Dhundia), after a long pursuit from Mysore territory. The freebooter with his followers had encamped on the banks of the river Malprabha, opposite the town, where he was surprised by General Wellesley at the head of a body of cavalry. The town contains eight temples dedicated to Panchalinga Deo, built of coarse-grained stone, without any remarkable carving; and a ruined fort. There is a boys' school with 97 pupils.

Manora.—Cape in Karāchi District, Sind, Bombay, situated in 24° 48′ N. and 66° 59′ E. A lighthouse on the cape, with a fixed light 148 feet above high water, is visible upwards of 20 miles, but only from 10 to 15 miles during the south-west monsoon. Manora forms a cantonment, and contains the Persian Gulf Telegraph department cable factory and a recently constructed dry dock, known as the Giles Graving Dock. The Karāchi Port and Pilot establishments, the

Port Officer and Port Engineer, and a portion of the Indo-European Telegraph establishment are resident here. An annual fair is held in March in honour of a *pīr* or saint, said to have been buried under miraculous circumstances. Manora hill is a very healthy place, and an occasional resort for invalids from Karāchi; it is 100 feet high at its east end, descending to 40 feet at the west end. At the distance of 2,310 feet to the east of Manora is a breakwater, which forms the protection of the entrance to Karāchi harbour in that direction. Opposite the north end of this breakwater is the landing-place, with three jetties on the island of Kiamāri: the Commissariat, the Passenger, and the Customs jetty. About 3 miles from the jetties is an island, on which is a meteorological observatory. There are fortifications and barracks, a dispensary, and a middle school for European and Eurasian girls at Manora Point. The entire peninsula has now been constituted a cantonment.

Mānpur.—An isolated British *pargana* in Central India, situated in the Bhopāwar Agency. The *pargana*, which has an area of 60 square miles, is bounded on the north, south, and east by portions of the Indore State, and on the west by the petty holding of Jāmnia. It lies on the edge of the Vindhyan scarp, and is intersected by numerous spurs of that range, covered with jungle. In the valleys the soil is of high fertility. The climate is temperate, the temperature ranging between 100° and 72°. The annual rainfall averages 33 inches.

Mānpur was originally a part of the Māndu *sarkār* of the *Sūbah* of Mālwā. In the eighteenth century it fell to Sindhia. In 1844 Mānpur was included in the tracts assigned by Sindhia for the maintenance of the Gwalior Contingent, and under the subsequent treaty of 1860 it was one of the districts of which possession was retained by the British Government.

Population fell from 5,342 in 1891 to 4,890 in 1901, Hindus forming 53 per cent. and Animists 37 per cent. of the total. The inhabitants consist mainly of Bhīls, a fact not entirely brought out by the census figures, as many were returned as Hindus. Native Christians numbered 241, chiefly belonging to the Roman Catholic Mission station at Khurda.

Of the total area, 11 square miles, or 18 per cent., are cultivated, of which only 332 acres are irrigated. About 15 square miles, or 25 per cent. of the total area, are capable of cultivation; 30 square miles, or 50 per cent., are under forest: and the rest is waste. Maize occupies 7 square miles, *jowār* and wheat 2 square miles each, and poppy 127 acres.

The *pargana* is in charge of a *kamāsdār*, who exercises the powers of a third-class magistrate. All civil cases and serious crimes are dealt with by the Political Agent. The total revenue is Rs. 19,800, of which

Rs. 12,500 is derived from land, Rs. 3,500 from forests, and Rs. 2,800 from excise. The chief heads of expenditure are: Rs. 4,700 on the collection of revenue, Rs. 1,900 on administrative establishment, and Rs. 1,600 on public works. The land is assessed in two classes, lower rates being given to the Bhīl cultivators as an inducement to settle. A twenty years' settlement of seven villages was made in 1867, which was renewed in 1887 for the whole *pargana* and extended to the remaining villages. The Bhīl rates are Rs. 8–8 per acre for irrigated and Rs. 1–12 to R. 0–6–4 for unirrigated land; other cultivators pay Rs. 12 for irrigated and Rs. 1–8 to R. 0–11–2 for unirrigated land. The incidence of the land revenue demand is Rs. 2–5 per acre of cultivated land, and R. 0–11–2 per acre of the total area. The revenue is collected in cash in British currency, which has been legal tender since 1861. The *pargana* is watched by a detachment of the Central India Agency police. Two schools, one at Mānpur village and the other at Sherpur, are situated in the *pargana*.

Mānpur, the head-quarters of the *pargana*, is situated in 22° 26′ N. and 75° 40′ E., on the Bombay-Agra high road, 13 miles from Mhow and 24 from Indore. Population (1901), 1,748. The place is said to derive its name from Rājā Mān Singh of Jaipur. The story goes that, after suffering a defeat, certain Rājputs of Mān Singh's army were ashamed to return home, and settled in the district, where they founded Mānpur, and called it after their chief. Forming connexions, as time went on, with the Bhīl women of the neighbourhood, they lost caste and became merged in the general population. The Bhīls of Mānpur claim a mixed descent equal to that of the Bhilāla, and consider themselves superior to other Bhīls. A British post office, the residence of the Political Agent, a school, a dispensary, and a public works inspection bungalow are situated in the place.

Mānsa State.—Petty State in Mahī Kāntha, Bombay.

Mānsa Town.—Chief town of the State of the same name in the Mahī Kāntha Agency, Bombay, situated in 23° 26′ N. and 72° 43′ E. Population (1901), 9,530. It has a large and wealthy community of merchants, and is considered the richest town in Mahī Kāntha.

Mānsehra Tahsīl (*Mānsahra*).—*Tahsīl* of Hazāra District, North-West Frontier Province, lying between 34° 14′ and 35° 10′ N. and 72° 55′ and 74° 6′ E., with an area of 1,486 square miles. Shaped like a cone, the *tahsīl* runs in a north-easterly direction, comprising the deep glen of Kāgān and the mountain ranges on either hand. The population in 1901 was 182,396, compared with 165,312 in 1891. The *tahsīl* contains the town of Baffa (population, 7,029) and 244 villages, including the large village of Mānsehra, its head-quarters. The land revenue and cesses in 1903–4 amounted to Rs. 1,03,000. The Agror valley is situated in this *tahsīl*.

Mānsehra Village (*Mānsahra*).—Head-quarters of the *tahsīl* of the same name, Hazāra District, North-West Frontier Province, situated in 34° 20′ N. and 73° 13′ E., on the right bank of an affluent of the Siran, north of Abbottābād, and on the main road from Kāla-kī-Sarai to the Kashmīr border. Population (1901), 5,087. A few resident Khattrī traders do a considerable business in grain and country produce. The chief institutions are an Anglo-vernacular middle school maintained by the District board, and a Government dispensary. Near the village are two rocks on which are inscribed in the Kharoshthī character thirteen of the edicts of Asoka.

Manthani.—Head-quarters of the Mahādeopur *tāluk*, Karīmnagar District, Hyderābād State, situated in 18° 39′ N. and 79° 40′ E., about one mile south of the Godāvari river. Population (1901), 6,680. The town contains a dispensary, a school, and a post office.

Manu.—River of Assam which rises in the State of Hill Tippera, and, after flowing in a tortuous north-westerly course through Sylhet District, falls into the Kusiyārā branch of the Surmā a little to the east of Bahādurpur. Almost the whole of its course in the plains lies through cultivated land, and it is largely used for the carriage of forest produce of all kinds, tea, rice, and oilseeds. Boats of 4 tons burden can proceed as far as the frontier of Hill Tippera in the rainy season, but during the dry season traffic is carried on in vessels of lighter draught. The river passes a large number of local centres of trade, the most important of which are Lalbāg and Maulavi Bāzār. A little to the east of the latter place it receives a considerable tributary, the Dholai. The total length of the river is 135 miles.

Mānvi Tāluk.—*Tāluk* in Raichūr District, Hyderābād State. Including *jāgīrs*, the population in 1901 was 70,773, and the area 573 square miles, while the population was 58,828 in 1891. It contained one town, MĀNVI (population, 6,253), the head-quarters; and 140 villages, of which 3 were *jāgīr*. In 1905 part of the Yergara *tāluk* was incorporated in Mānvi. It is separated from the Madras District of Kurnool in the south by the Tungabhadra river. The land revenue in 1901 was 2 lakhs. The soil is chiefly *regar* or alluvial.

Mānvi Town.—Head-quarters of the *tāluk* of the same name in Raichūr District, Hyderābād State, situated in 15° 59′ N. and 77° 3′ E. Population (1901), 6,253. It contains temples of Mārothi, Rāmasimha, and Venkateshwara, and a Jāma Masjid. Opposite the temple of Mārothi, which is erected on a hill to the west of the town, is a large block of stone bearing a lengthy Kanarese inscription. Another stone bearing an inscription stands near a well in the fort, which is now in ruins.

Mānwat.—Town in the Pāthri *tāluk* of Parbhani District, Hyderābād State, situated in 19° 18′ N. and 76° 30′ E., five miles south of

the Hyderābād-Godāvari Valley Railway. Population (1901), 7,395. It is a busy centre of the grain trade, and contains a State post office, a British sub-post office, and four schools.

Maodon.—Petty State in the Khāsi Hills, Eastern Bengal and Assam. The population in 1901 was 296, and the gross revenue in 1903-4 was Rs. 1,490. The principal products are millet, oranges, areca-nuts, pineapples, and bay leaves. Deposits of lime and coal exist in the State, but are not worked.

Maoflang.—Petty State in the Khāsi Hills, Eastern Bengal and Assam. The population in 1901 was 947, and the gross revenue in 1903-4 was Rs. 145. The principal products are millet, rice, coal, and potatoes.

Maoiang.—Petty State in the Khāsi Hills, Eastern Bengal and Assam. The population in 1901 was 1,856, and the gross revenue in 1903-4 was Rs. 300. The principal products are potatoes, millet, and honey. Lime and iron are found in the State, but are not worked.

Maolong.—Petty State in the Khāsi Hills, Eastern Bengal and Assam. The population in 1901 was 1,472, and the gross revenue in 1903-4 was Rs. 1,800. The principal products are oranges, millet, areca-nuts, and pineapples. There is some trade in lime, and the coal-mines of the State have been leased to a company for thirty years.

Maosanrām.—Petty State in the Khāsi Hills, Eastern Bengal and Assam. The population in 1901 was 1,414, and the gross revenue in 1903-4 was Rs. 2,930. The principal products are potatoes, millet, and honey. Lime, coal, and iron are found in the State, but are not worked.

Māpuça.—Chief town in Bārdez District, Goa, Portuguese India, situated in 15° 36′ N. and 73° 52′ E., about 8 miles north of Panjim. Population (1900), 10,733. Māpuça was celebrated in ancient times for the great weekly fair on Fridays. It takes its name, according to some, from *māp*, 'measure,' and *sa*, 'to fill up,' that is, the place of measuring or selling goods. It is now one of the most important commercial places in the territory of Goa. The church, dedicated to Our Lady of Miracles, was built in 1594, and is held in great veneration not only by Christian converts but also by Hindus. On the feast of Our Lady of Miracles men of every class and creed come in crowds, bringing offerings to the Virgin. On the same occasion a fair is held, which lasts five days. Besides the church, Māpuça contains six chapels, an asylum for the poor and destitute, a town hall, and a jail. To the west of Māpuça are military barracks, where a regiment was stationed from 1841 to 1871, when it was disbanded. The barracks are now occupied by the police force, post office, and schools.

Mārahra (or Mārhara).—Town in the District and *tahsīl* of Etah,

United Provinces, situated in 27° 44′ N. and 78° 35′ E., on the Cawnpore-Achhnerā Railway. Population (1901), 8,622. The Musalmān residents, who form more than half the total population, have great influence throughout the District. The name is said to be derived from the mythical destruction of a former village (*mār*, 'killing,' and *hara*, 'green,' i.e. jungle). During Akbar's reign the town was the head-quarters of a *dastūr*. In the eighteenth century it belonged to the Saiyids of Bārha in Muzaffarnagar, and then passed to the Nawābs of Farrukhābād and of Oudh. The town is scattered and of poor appearance, but contains the ruins of two seventeenth-century tombs, and another tomb and a beautiful mosque built in 1729 and 1732 respectively. There is also a dispensary. Mārahra was a municipality from 1872 to 1904, with an income and expenditure of about Rs. 5,000, chiefly derived from octroi. It has now been constituted a 'notified area,' and octroi has been abolished. The trade is entirely local, but glass bangles are made. Mārahra contains four schools with 100 pupils, and a small branch of the Alīgarh College.

Marang Buru.—Hill on the edge of the plateau of Hazāribāgh District, Bengal, situated in 23° 33′ N. and 85° 27′ E., on the boundary line between Hazāribāgh and Rānchī Districts. It rises 2,400 feet above the valley of the Dāmodar and 3,445 feet above sea-level. It is an object of peculiar veneration to the Mundās, who regard Marang Buru as the god of rainfall, and appeal to him in times of drought or epidemic sickness.

Marble Rocks.—The well-known gorge of the Narbadā river, in Jubbulpore District, Central Provinces, situated in 23° 8′ N. and 79° 48′ E., near the village of Bherāghāt, 13 miles from Jubbulpore city by road, and 3 miles from Mīrganj station on the Great Indian Peninsula Railway. The river here winds in a deep narrow stream through rocks of magnesian limestone 100 feet high, giving an extremely picturesque effect, especially by moonlight. One place where the rocks approach very closely is called the Monkey's Leap. Indra is said to have made this channel for the waters of the pent-up stream, and the footprints left on the rock by the elephant of the god still receive adoration. The greatest height of the rocks above water-level is 105 feet, and the depth of water at the same place 48 feet, but the basin near the travellers' bungalow is 169 feet deep. On a hill beside the river are some curious remains of statuary. A modern temple is surrounded by a high circular wall of much more ancient date, against the inside of which is built a veranda supported by columns set at regular intervals. The pilasters built against the wall opposite each of the pillars divide the wall space into panels, and in each of these on a pedestal is a life-sized image of a god, goddess, &c., for the most part in a very mutilated condition. Most

of the figures are four-armed goddesses, and the name of the temple is the Chaunsath Joginī, or 'sixty-four female devotees.' The statues have symbols in the shape of various animals carved on their pedestals. Bherāghāt is sacred as the junction of the little stream of the Saraswatī with the Narbadā; and a large religious fair takes place here in November for bathing in the Narbadā, the attendance on the principal day being about 40,000. The marble obtained from these rocks is coarse grained and suitable only for building stone. It is very hard and chips easily, and is therefore not well adapted for statuary. The colours found are canary, pink, white, grey, and black. Soapstone or French chalk is found in pockets in the bed of the Narbadā.

Mardān Tahsīl.—*Tahsīl* of Peshāwar District, North-West Frontier Province, lying between 34° 5′ and 34° 32′ N. and 71° 49′ and 72° 24′ E., in the centre of the part of the District which lies north of the Kābul river, with an area of 610 square miles. It comprises the greater portion of the Yūsufzai plain, and with the Swābi *tahsīl* forms the Yūsufzai subdivision of Peshāwar District. The population in 1901 was 137,215, compared with 113,877 in 1891. It contains the cantonment of Mardān (3,572) and 130 villages, including Hoti and Rustam. The land revenue and cesses in 1903-4 amounted to Rs. 1,76,000.

Mardān Town.—Cantonment in Peshāwar District, North-West Frontier Province, and permanent head-quarters of the Queen's Own Corps of Guides. It is also the head-quarters of the Mardān *tahsīl* and the Yūsufzai subdivision. Population (1901), 3,572. The cantonment is situated in 34° 12′ N. and 72° 2′ E., on the right bank of the Kalpāni river, 33 miles north-east of Peshāwar and 15 miles north of Naushahra, on the North-Western Railway. The fort was built by Hodson of the Guides in 1854. The civil lines lie in the southern part of the cantonment on the Naushahra road, and contain the Assistant Commissioner's bungalow, court-house, *tahsīlī*, Government dispensary, and other public offices. An Anglo-vernacular middle school is maintained by the District board. The village of Hoti, from which the station is sometimes called Hoti Mardān, lies 2 miles from the cantonment.

Margao.—Town in Salsette district, Goa, Portuguese India, situated in 15° 18′ N. and 74° 1′ E., in a beautiful plain in the centre of the district, on the bank of the Sal river, and about 16 miles south-east of Panjim. It is a station on the West of India Portuguese Railway. Population (1900), 12,126. Margao, according to tradition, was one of the early seats of the Aryan settlers of Goa, and the site of the chief *math* or convent, whence its name Mathagrāma, or 'the village of the convent,' corrupted into Margao. Though for some time

exposed to the incursions of Muhammadans and Marāthās, Margao was inhabited by many rich families. Of late many public and private buildings have been erected. Christianity was introduced into Margao in 1560, and the first church was built in 1565. The Jesuits in 1574 built a college, which was subsequently removed to Rachol, a village about 6 miles north-east. Margao contains a town hall, Government schools, a theatre, and an asylum. The military barracks, built in 1811, were formerly occupied by a regiment, but at present by the police, a small military detachment, and the post office. From Margao a good road leads south to Kārwār, the chief town of the adjacent British District of North Kanara, distant 44 miles.

Mārgheritā.—Village in the Dibrugarh subdivision of Lakhimpur District, Eastern Bengal and Assam, situated in 27° 17′ N. and 95° 47′ E., on the left bank of the Buri Dihing river. Mārgheritā lies at the foot of the Pātkai range, and is surrounded on every side by forest. The village owes its prosperity to the coal-mines in the neighbourhood. The coal measures consist of beds of alternating shales, coal, and sandstones, and are known as the Mākum field. Five mines have been opened—the Tikāk, Upper Ledo, Ledo Valley, Tirāp, and Namdang—which in 1903 gave employment to 1,200 coolies working under 9 Europeans. The output in that year was 239,000 tons. The coal is on the whole fairly hard and compact, but after extraction and exposure to the air it breaks up into small pieces. Mining is conducted on the 'square or panel' system, a modification of the system known in England as 'pillar and stall.' Mārgheritā is connected with Dibrugarh by the Dibru-Sadiyā Railway, which crosses the Dihing river by a fine bridge. The Coal Company has opened a large pottery, in which bricks, pipes, and tiles are made. A police station and stockade are held by military police in the vicinity. The weekly market is much frequented by the hill tribes, who bring down rubber, amber, wax, and vegetables.

Māri.—Village in the District and *tahsīl* of Miānwāli, Punjab, situated in 32° 57′ N. and 71° 39′ E., on the east bank of the Indus. Population (1901), 1,490. Māri is the terminus of a branch line of the North-Western Railway, and serves as a dépôt for the salt and alum of Kālābāgh. Near it are the ruins of several Hindu temples, similar to those at Kāfirkot in Dera Ismail Khān, but larger and better preserved.

Mariāhū.—Southern *tahsīl* of Jaunpur District, United Provinces, comprising the *pargana* of Mariāhū and *tappas* Barsathī and Gopālpur, and lying between 25° 24′ and 25° 44′ N. and 82° 24′ and 82° 44′ E., with an area of 321 square miles. Population fell from 253,402 in 1891 to 243,792 in 1901. There are 676 villages and only one town, Mariāhū (population, 3,626), the *tahsīl* head-quarters. The

demand for land revenue in 1903-4 was Rs. 3,21,000, and for cesses Rs. 44,000. The density of population, 759 persons per square mile, is slightly below the District average. Mariāhū is divided into two nearly equal portions by the Basūhī river, while the Sai and Barnā form its north-eastern and southern boundaries. The area under cultivation in 1903-4 was 212 square miles, of which 116 were irrigated. There are about 1,200 small tanks; but wells are by far the most important source of irrigation.

Mārkandī.—Village in the Garhchirolī *tahsīl* of Chānda District, Central Provinces, situated in 19° 41′ N. and 79° 50′ E., 56 miles south-east of Chānda town by road. Population (1901), 211. The village stands on a bluff overlooking the Waingangā, and is remarkable for an extremely picturesque group of temples. They are enclosed in a quadrangle 196 feet by 118, and there are about twenty of different sizes and in different stages of preservation. They are richly and elaborately sculptured, and are assigned to the tenth and eleventh centuries. The wall surrounding them is of a primitive type, and probably much older. The largest and most elaborate temple is that of Mārkanda Rishi. There are also some curious square pillars sculptured with figures of soldiers, and probably more ancient than the temples. A religious fair is held annually at Mārkandī in February and March, lasting for about a month. The great day of the fair is the Sivarātri festival, when the attendance amounts to 10,000 persons.

Mārkāpur Subdivision.—Subdivision of Kurnool District, Madras, consisting of the MĀRKĀPUR and CUMBUM *tāluks*.

Mārkāpur Tāluk. — North-eastern *tāluk* of Kurnool District, Madras, lying between 15° 37′ and 16° 18′ N. and 78° 50′ and 79° 34′ E., with an area of 1,140 square miles. The population in 1901 was 94,293, compared with 99,971 in 1891; the density is only 83 persons per square mile. It contains 76 villages, 12 of which are 'whole *ināms*.' Most of these latter are uninhabited. The demand for land revenue and cesses in 1903-4 amounted to Rs. 1,13,000, which is lower than in any other *tāluk* in the District. This *tāluk* and Cumbum are situated to the east of the Nallamalais, which separate them from the rest of the District, and their physical aspects are very different from those of their neighbours. The greater part of Mārkāpur is hilly. Several low ranges intersect it; and down the valleys formed by these flow the chief rivers, namely, the Duvvaleru, the Ralla Vāgu, the Tīgaleru, and the Kandleru, which drain the *tāluk* and flow into the Gundlakamma river. The soil is mostly rocky and gravelly, about 89 per cent. being red earth of a poor description. There are great natural facilities for impounding rain-water in tanks; but owing to the sparseness of population and the

consequent dearth of labour, 'wet' cultivation is not popular and the tank projects are unremunerative. The *tāluk* contains the largest number of wells in the District, and nearly two-thirds of its irrigated area is watered from these sources. The very large extent of 'reserved' forests (557 square miles) affords ample grazing ground for cattle and sheep, for which Mārkāpur is noted. The cattle of the coast Districts of Nellore and Guntūr are driven to the Nallamalais to graze during the hot season. The climate in the western half of the *tāluk* bordering upon the Nallamalais is unhealthy, but that of the eastern half is comparatively salubrious. The annual rainfall averages 25 inches.

Marmagao.—Peninsula, village, and port in Salsette district, Goa, Portuguese India, and the terminus of the West of India Portuguese Railway, situated in 15° 25′ N. and 73° 47′ E. The peninsula of Marmagao is situated on the southern side of the harbour of Goa, on the left bank of the Zuāri river, and is connected with the mainland by a narrow strip of sand about a quarter of a mile broad, and elevated about 10 feet above the sea. The whole peninsula is composed of laterite, and the shore is fringed with heavy boulders, which have crumbled and fallen from the cliff. The summit of the peninsula is a table-land, about 180 to 200 feet high, composed of bare laterite covered with loose stones, with patches of grass. The slopes of the hill, which are steep, and present a bold appearance seaward, are covered with thick jungle and scrub.

The village and port of Marmagao are situated at the eastern extremity of the peninsula, about 5 miles south of Panjim. Population (1900), 750, mostly Christians. In the last half of the seventeenth century the Portuguese Viceroy, the Count of Alvor, resolved to abandon Goa, and transfer the seat of the government to the peninsula of Marmagao. In 1684–5 the foundations of a new capital were laid and the work progressed favourably. In 1686 the works were stopped by his successor. During the next fifteen years orders were repeatedly received from Portugal to demolish the public buildings of Goa, and to apply the materials to the construction of new ones at Marmagao, while the Viceroys were directed to transfer their residence to that place. During the Viceroyalty of Caetano de Mello e Castro, the works were pushed on with vigour, and several buildings were completed, among which may be mentioned the palace and the hospital. The Viceroy himself resided at Marmagao for a few months in 1703. Suddenly the works were stopped by a royal letter of March 8, 1712. In 1739, when Goa was in danger of falling into the hands of the Marāthās, the nuns and other helpless members of the population sought refuge at Marmagao.

The Government buildings are now mere heaps of ruin. The only relic of importance is a fine old church. The fortress has been

converted into an hotel. In anticipation of the trade which, it is hoped, will be developed, now that goods can be shipped direct from Marmagao to Europe, measures have been taken to improve the harbour. Since 1903 the management of the port, as well as of the railway, has been entrusted to the Southern Mahratta Railway Company. The imports in the year 1903–4, by sea and land, amounted to close on 35 lakhs, while the exports were valued at 11 lakhs.

Marot.—Ancient fort in the Khairpur *tahsīl* of Bahāwalpur State, Punjab, situated in 29° 10′ N. and 72° 28′ E., on the south bank of the Hakra depression. It was probably erected by Mahrūt, king of Chitor, an opponent of Chach, the Brāhman usurper of the throne of Sind. It was a place of some importance in the early Muhammadan period, lying on the direct road from Multān to Delhi via Sarsuti (Sirsa). It was wrested by the Nawāb of Bahāwalpur from Jaisalmer in 1749.

Marri.—*Tahsīl* and town in Rāwalpindi District, Punjab. *See* MURREE.

Marri-Bugti Country.—A tribal area in Baluchistān, controlled from Sibi District, lying between 28° 26′ and 30° 4′ N. and 67° 55′ and 69° 48′ E., with an area of 7,129 square miles. The northern part, the area of which is 3,268 square miles, is occupied by the Marris, and the southern part, 3,861 square miles, by the Bugtis. The country is situated at the southern end of the Sulaimān range. It is hilly, barren, and inhospitable, and supplies are scarce. Here and there are good pasture grounds, and a few valleys and plains are gradually being brought under cultivation. The valleys and plateaux include Nisau (3,000 feet), Jant Alī (2,847 feet), Kahān (2,353 feet), Māwand (2,620 feet), and Marav (2,195 feet). The rainfall is scanty and is chiefly received in July.

The Marris and Bugtis are the strongest Baloch tribes in the Province. The total population of their hills was 38,919 in 1901, or about five persons to the square mile. The Marris, including those living in the British *tahsīl* of Kohlu, numbered 19,161, with 140 Hindus and 1,090 other persons living under their protection (*hamsāyah*). The population of the Bugti country amounted to 18,528, comprising 15,159 Bugtis, 272 Hindus, 708 *hamsāyahs*, and 2,389 *maretās* or servile dependants. The population are essentially nomadic in their habits, and live in mat huts. The total number of permanent villages decreased from eight in 1901 to five in 1904; the most important are Kahān (population, about 400) in the Marri country, and Dera Bugti (population, about 1,500) in the Bugti country.

Both tribes are organized on a system suitable to the predatory transactions in which they were generally engaged in former times. Starting from a small nucleus, each gradually continued to absorb

various elements, often of alien origin, which participated in the common good and ill, until a time arrived when it was found necessary to divide the overgrown bulk of the tribe into clans (*takkar*), the clans into sections (*phalli*), and the sections into sub-sections (*pāra* or *firka*). At the head of the tribe is the chief (*tumandār*), with whom are associated the heads of clans (*mukaddam*) as a consultative council. Each section has its *wadera*, with whom is associated a *mukaddam*, who acts as the *wadera's* executive officer and communicates with the *motabars* or headmen of sub-sections. Each tribe was thus completely equipped for taking the offensive. In pre-British days a share of all plunder, known as *panjoth*, was set aside for the chief; headmen of clans then received their portion, and the remainder was divided among those who had taken part in an expedition. Side by side with this system there still exists, among the Marris and the Pairozāni Nothāni clan of the Bugtis, a system of periodical division of all tribal land. The three important clans of the Marris are the Gaznis (8,100), to whom the Bahāwalānzai or chief's section belongs; the Loharāni-Shirāni (6,400); and the Bijrāni (4,700). The Bugtis include the clans of Pairozāni Nothāni (4,700), Durragh Nothāni (1,800), Khalpar (1,500), Massori (2,900), Mondrāni (500), Shambāni (2,900), and Raheja (880). The chief's section belongs to the latter. The chiefs levy no revenue, but usually receive a sheep or a goat from each flock when visiting different parts of their country.

The early history of both tribes is obscure. The Marris are known to have driven out the Kupchānis and Hasnis, while the Bugtis conquered the Buledis. Owing to the great poverty of their country, both tribes were continuously engaged in plunder and carried their predatory expeditions far into the adjoining regions. They came in contact with the British during the first Afghān War, when a force under Major Billamore penetrated their hills. In April, 1840, a small detachment was sent, under Captain Lewis Brown, to occupy Kahān and guard the flank of the lines of communication with Afghānistān; but it was invested for five months and two attempts at relief were beaten off. The fort was, however, only surrendered after a safe retreat had been secured from Doda Khān, the Marri chief. In 1845 Sir Charles Napier conducted a campaign against the Bugtis, who fled to the Khetrāns, and the expedition was only a qualified success. General John Jacob, after much trouble with both tribes, but especially with the Bugtis, settled some of the latter on irrigated lands in Sind in 1847, but many of them shortly afterwards fled to their native hills. Both tribes were subsidized by the Khān of Kalāt after the treaty of 1854; but in 1859 Mīr Khudādād Khān was obliged to make an expedition against the Marris, accompanied by Major (afterwards Sir Henry) Green. Another unsuccessful campaign followed in 1862.

Anarchy ensued; and in 1867 Captain (afterwards Sir Robert) Sandeman, then Deputy-Commissioner of Dera Ghāzi Khān, entered into direct relations with them and took some of them into the service of Government. The result of the Mithankot conference, which took place between Punjab and Sind officials in 1871, was to place Sandeman in political control of the Marri-Bugti country under the orders of the Superintendent, Upper Sind Frontier.

On the establishment of the Baluchistān Agency in 1877, British relations with the Marris and Bugtis became closer, and service and allowances were given to them. The Bugtis have throughout behaved well. The Marris, in August, 1880, plundered a convoy marching along the Harnai route and killed 42 men, whereupon a punitive expedition was dispatched under General Sir Charles Macgregor, to whom the Marri chief and his headmen tendered their submission. They paid Rs. 1,25,000 in cash, out of a fine of Rs. 1,75,000 inflicted on them, and agreed to surrender half of the revenue of the Kuat-Mandai valley until the balance of Rs. 50,000 had been paid off. Since then the Marris have given little trouble, with the exception of the part they took in the Sunari outrage in 1896, when they killed 11 men, and some unrest which occurred in 1898 and ultimately ended in the son of the Marri chief emigrating temporarily to Afghānistān.

Both tribes are under the control of the Political Agent in Sibi, with the Extra-Assistant Commissioner of the Sibi subdivision in subordinate charge. Direct interference in the internal affairs of the tribes is, so far as possible, avoided, the chiefs being left to decide all such cases in consultation with their sectional headmen and in accordance with tribal custom. The task of the Political officers is chiefly confined to the settlement of intertribal cases either between the Marris and Bugtis themselves, whose relations are frequently strained, or with the neighbouring tribes of Loralai District and the Punjab. A code of penalties for the infliction of particular injuries, such as murder, the loss of an eye or tooth, &c., was drawn up between the Marris and Bugtis in 1897, and is followed in ordinary circumstances. Cases of extraordinary importance are referred to the *Shāhi jirga*, and the Political Agent sees that the award is carried out. Large services have been given to both tribes, to enable the chiefs to secure control over their followers. The Marri tribal service consists of 1 headman, 206 mounted levies, 5 footmen, and 8 clerks and menials; 35 of these men are stationed at seven posts in Loralai District and 109 at thirteen posts in the Administered area of Sibi District. The remainder hold three posts in the Marri country. The total monthly cost amounts to Rs. 5,600. The Bugti service includes 3 headmen, 136 mounted levies, 4 footmen, and 6 clerks, costing Rs. 3,800

monthly. The posts on the south of the Bugti country are controlled from the Nasīrābād *tahsīl.*

Marriw.—Petty State in the Khāsi Hills, Eastern Bengal and Assam. The population in 1901 was 2,289, and the gross revenue in 1903–4 was Rs. 380. The principal products are rice, millet, and maize. Lime is found in the State, but is not worked.

Martaban.—Ancient Talaing capital in Thaton District, Lower Burma. *See* THATON DISTRICT.

Marutvamalai.—Isolated hill, forming the southernmost extremity of the Western Ghāts, in the Agastīswaram *tāluk* of Travancore State, Madras, situated in 8° 8′ N. and 77° 35′ E., about 5 miles north-west of Cape Comorin. Tradition regards it as having been dropped from the Oshadhi Parvatam, or 'medicine hill,' while this latter was being taken by Hanumān from the Himālayas to cure the wound of Lakshmana sustained during the battle with Rāvana's forces. It is still believed to be the abode of sages and to contain many species of rare medicinal herbs.

Mārwār.—Another name for the JODHPUR STATE in Rājputāna, but in former times applied to about half of the Agency. Mārwār is a corruption of Maru-wār, classically Marusthala or Marusthān, also called Marudesa, whence is derived the unintelligible Mardes of the early Muhammadan writers. The word means the 'region of death,' and hence is applied to a desert. Abul Fazl thus described it in 1582: 'Mārwār is in length 100, and in breadth 60 *kos*. The *sarkārs* of Ajmer, Jodhpur, Sirohi, Nāgaur, and Bīkaner are dependent on it. The Rāthor tribe have inhabited this division for ages past. Here are many forts, of which the following are the most famous: namely, Ajmer, Jodhpur, Bīkaner, Jaisalmer, Umarkot, and Jainagar.' In Tod's *Rajasthan* it is said that 'its ancient and appropriate application comprehended the entire desert from the Sutlej to the ocean.' The tract has given its name to the numerous enterprising traders known as Mārwāris or Mārwāri Baniās, who have spread far and wide over India, and acquired an important share in the commerce of the country.

Marwat Tahsīl.—*Tahsīl* of Bannu District, North-West Frontier Province, lying between 32° 16′ and 32° 53′ N. and 70° 23′ and 71° 16′ E., with an area of 1,198 square miles. The whole *tahsīl* is one large sandy plain. Its population in 1901 was 96,332, compared with 84,145 in 1891. It contains the town of LAKKI (population, 5,218), the head-quarters; and 145 villages. The land revenue and cesses in 1903–4 amounted to Rs. 1,30,000.

Masār.—Village in the head-quarters subdivision of Shahābād District, Bengal, situated in 25° 33′ N. and 84° 35′ E., a little to the south of the East Indian Railway, about 6 miles west of Arrah.

Population (1901), 3,073. Masār has been identified with the Mo-ho-so-lo of the Chinese pilgrim Hiuen Tsiang, and from his account must then have stood close to the Ganges. The river now flows 9 miles to the north, but traces of the high banks of its old channel still remain. The old name of Masār, as proved by seven inscriptions in the Jain temple of Parasnāth, was Mahāsarā; but the original name is said to have been Sonitpur, famous as the residence of Bāna Rājā, whose daughter Ushā was married to a grandson of Krishnā[1]. There is a Jain temple here with several Brāhmanical images and an inscription dated 1386. Dr. Buchanan-Hamilton discovered some Buddhist images in a heap of mud and bricks to the west of the village, which he assigned to the Cheros. There are fourteen fine old wells and numerous tanks. The population of the old town has been estimated at about 20,000. At present it is only a straggling village. A colossal image found at Masār was in 1882 removed to Arrah, and the fragments being pieced together, it was set up in the public garden at that place; it appears to be of the Gupta period. Among other statues, those of Mahāmāya and Bhairab are noteworthy.

Masein.—Southern township of the Upper Chindwin District, Upper Burma, extending from the Yoma in the west across the Chindwin river to Shwebo District in the east, between 23° 10′ and 23° 35′ N. and 94° 15′ and 94° 58′ E., with an area of 1,334 square miles. The population, which is wholly Burman, was 12,646 in 1891, and 14,365 in 1901, distributed in 156 villages. Masein (population, 1,118), on the Chindwin river, about 30 miles below Kindat, is the head-quarters. The whole of the township is a network of small hills and narrow valleys. The area cultivated in 1903–4 was 26 square miles, and the land revenue and *thathameda* amounted to Rs. 40,000.

Māskhāl.—Island in Eastern Bengal and Assam. *See* MAISKHĀL.

Mastūj.—Village, fort, and district subject to Chitrāl, in the Dīr, Swāt, and Chitrāl Agency, North-West Frontier Province, situated in 36° 17′ N. and 72° 33′ E. The village lies on the left bank of the Mastūj river, near its confluence with the Laspūr, at an elevation of 7,800 feet above sea-level. Mastūj is not, properly speaking, part of Chitrāl State. It has often been conquered by Chitrāl and has at times conquered it. At present Mastūj is governed by a Mehtarjao, an uncle of the Mehtar of Chitrāl, who is independent of him, though Mastūj is part of the Chitrāl Agency. The climate in winter is severe, owing to the cold winds which blow down the valleys. An inscription at Barenis, a neighbouring village on the right bank of the Mastūj river, shows that Chitrāl was included in the kingdom of Jaipāl, king of Kābul, about A.D. 900, and that its inhabitants were then

[1] Tezpur in Assam also claims to have been called Sonitpur, and to have been the capital of this Rājā.

Buddhists. Its history is that of CHITRĀL, and it has a population of about 6,000.

Masulipatam Subdivision. — Subdivision of Kistna District, Madras, consisting of the BANDAR *tāluk*.

Masulipatam Town (in Hindustāni *Machhlīpatan* = 'fish-town'; popularly known as Bandar = 'the port'). — Head-quarters of the Kistna District, Madras, situated in 16° 11′ N. and 81° 8′ E., on the Bay of Bengal, 215 miles north of Madras City. The town is made up of three parts: the fort, the native quarter, and the European quarter. Of these the fort, which is situated close to the sea, is now little more than a memory. The barracks and arsenal, which fell into decay after the withdrawal of troops (first in 1834 and finally in 1864), have now been pulled down; the churches are in ruins, and the private houses that formerly stood here were destroyed by the great cyclone of 1864. Round the fort stretches a vast expanse of waste land, swamp during the rainy season but firmer in summer, over which a causeway about two miles in length, running in a westerly direction, leads to the native town. In this part of Masulipatam it is still possible to distinguish the separate stations of the various nationalities which traded here centuries ago. French-pettah, occupying a space of about 1,300 square yards, the ownership of which (though not the sovereignty) is vested in the French Government, and English-pālem are here; while some distance to the north-west lies Valanda-pālem (Hollander-town) with the old Dutch graveyard. Close at hand is the former council chamber of the Netherlands East India Company, now used as a court-house. North of the native quarter along a sand ridge are built the houses of the European residents.

Unless the railway recently sanctioned from Bezwāda should revive its commercial importance by connecting it again with the outside world, the interest of Masulipatam will continue to lie in the past. Its manufactures, principally chintzes and coloured cloths, have been crushed out of the market by English piece-goods; and, since the opening of the railway to Bombay, that city has superseded Masulipatam as the port for the Nizām's Dominions. The East Coast Railway has also contributed to the extinction of the sea-borne traffic formerly carried on between Masulipatam, Cocanāda, and the southern coast of India. The annual imports are now valued at only Rs. 7,11,000, and the exports at Rs. 10,31,000.

As to the origin of Masulipatam we have no certain information, and its real history begins early in the seventeenth century. In 1611 the East India Company dispatched the ship *Globe*, commanded by Captain Hippon, to open a trade with the Coromandel coast; and in 1612 the vessel took a cargo of cotton goods and other fabrics to Bantam and Siam, returning to Masulipatam in the following year.

With Captain Hippon sailed, in the capacity of a supercargo, Peter Floris, a Dutchman, who has left a diary describing how English trade was begun at the place. For many years disputes raged between the new-comers and the Dutch. In 1628 the English were compelled to remove to ARMAGON on the Nellore coast, but in 1632 they returned to Masulipatam, having obtained a *farmān* from the Sultān of Golconda. By this time the town had become of much importance; and it is described by a Dominican friar, who visited it in 1670, as being 'famous all along the coast of Coromandel,' and as 'resembling Babel in the variety of tongues and the differences of garbs and costumes.'

In 1686 the Dutch seized the government of Masulipatam and ordered the English not to trade outside the town. The English, undaunted, warned the Dutch not to interfere with their trade 'on account of the ill consequences that may be'; and in 1690 the Madras Government obtained a *farmān* from the Mughal emperor authorizing them to reopen their factories along the coast. Trade, however, appears to have been on a very small scale; for in 1726 the Masulipatam and Madapollam factories were maintained at a cost of 628 pagodas per annum, while the Vizagapatam factory at the same date cost 6,000 pagodas.

In 1750 Masulipatam was seized by the French under the orders of Dupleix, and continued in their possession until 1759. In 1758, with a view to divert the attention of the French, who were then preparing for a strenuous effort in the Carnatic and the siege of Madras city, an expedition, consisting of 300 Europeans and 1,400 sepoys under Colonel Forde, was dispatched by Clive from Calcutta to Vizagapatam. This force speedily found itself hampered on all sides, and it seems to have been a counsel of despair that prompted Colonel Forde to march on Masulipatam. Arrived there, he found a means of escape in the ship *Hardwicke*, which, with two other vessels, was at anchor in the roads. Before resorting thereto, however, Colonel Forde resolved on the desperate enterprise of endeavouring to storm the fort. Although it was held by a force superior to his own, and a French corps with native auxiliaries manœuvred in his rear, fortune favoured him, and the attack, delivered early in 1759, was successful. The Sūbahdār of the Deccan, the most powerful auxiliary of the French, was shortly afterwards forced to negotiate with the English, owing to the attack made on his kingdom by his brother Nizām Alī; and under a treaty signed on May 14, 1759, Masulipatam with the adjacent territory passed to the Company. Thereafter its political history was uneventful. It became the headquarters of a Chief and Council. These were abolished in 1794, and a Collector was appointed. In 1834 the occupation of the fort by European troops was discontinued, and the native garrison was

withdrawn in 1864. The trade of the port has steadily diminished. The opening of the Bezwāda-Masulipatam canal in 1863 gave promise of a revival, but these hopes were dashed to the ground by the tidal wave of 1864, which practically wiped much of the town off the face of the earth. As many as 30,000 people perished in this catastrophe.

In 1901 the population of Masulipatam was 39,507: namely, 34,126 Hindus, 4,635 Musalmāns, 714 Christians, and 32 'others.' It was constituted a municipality in 1866. During the ten years ending 1902–3 the municipal receipts and expenditure averaged Rs. 56,000. In 1903–4 they were Rs. 62,000 and Rs. 57,000 respectively. Most of the income is derived from house and land taxes, tolls, and fees from markets and slaughter-houses.

The Masulipatam carpet industry, formerly famous, is now almost extinct; and the beautiful carpets which used to be largely exported to England are seldom seen. Printed cloths are still manufactured, but the lessening demand for them will soon kill the industry. There is a tannery in the town, which sends out annually skins worth from Rs. 50,000 to Rs. 60,000. The principal educational institution is the Church Missionary Society's first-grade college, called after its founder, Dr. Noble. The Hindu high school is a private institution teaching up to the matriculation standard.

Masūra.—Town in the Mālvan *tāluka* of Ratnāgiri District, Bombay, situated in 16° 10′ N. and 73° 32′ E., 8 miles north-east of Mālvan. Population (1901), 8,855. It has been identified as the Muziris of Ptolemy and the *Periplus*, one of the chief marts of Western India; but the identification is disputed.

Māt (*Mānt*).—North-eastern *tahsīl* of Muttra District, United Provinces, conterminous with the *pargana* of the same name, lying between 27° 35′ and 27° 58′ N. and 77° 31′ and 77° 50′ E., with an area of 223 square miles. Population rose from 89,451 in 1891 to 97,370 in 1901. There are 142 villages, but no town. In 1903–4 the demand for land revenue was Rs. 2,65,000, and for cesses Rs. 43,000. The density of population, 437 persons per square mile, is much below the District average. The Jumna forms the western boundary of the *tahsīl*, and parallel to its course lie a series of depressions marking an old bed. Nohjhīl, the most northern of these, was formerly a lake 6 miles long by a mile broad, but it has been drained. The Motī *jhīl* in the south, which is smaller, still contains water, and is celebrated for the number of fish caught in it. A small stream called the Patwāhā is used as a canal escape. Light and sandy soil prevails in the *tahsīl*, which forms a long strip of land stretching along the Jumna, the valley being narrow and badly defined. Up to 1903 canal-irrigation was confined to very few villages, and in 1903–4 only 53 square miles were irrigated (chiefly by wells), out of a cultivated area of 170 square miles.

The new Māt branch of the Upper Ganges Canal now commands a considerable area.

Mātābhānga River (or Haulī).—One of the three NADIĀ RIVERS of Bengal, the other two being the BHĀGĪRATHI and JALANGĪ. All these rivers are offshoots of the GANGES, and form the head-waters of the HOOGHLY river. The Mātābhānga has its principal off-take from the Ganges in 24° 4′ N. and 88° 48′ E., about 10 miles below the point where the Jalangī diverges from it. The off-take is subject to the same shifting and changing as that of the Bhāgīrathi. Lower down, the Mātābhānga is a comparatively narrow stream with well-defined banks throughout. It flows first in a south-easterly, and afterwards in a tortuous south-westerly direction, to Krishnaganj, due east of Krishnagar, the head-quarters of Nadiā District. During the past century it has had many vicissitudes. It had formerly an outlet to the east of the delta; but, owing to the gradual silting up of this tract, it subsequently left its bed and turning west occupied in turn parts of the channels of the KUMĀR, ICHĀMATĪ (2), and Churnī rivers. It now joins the HOOGHLY near Chākdaha, in 23° 9′ N. and 88° 29′ E., after a course of 129 miles. For the first 40 miles after leaving the Ganges it is still known as the Haulī or Kumār, while the true Kumār river, locally known as the Pāngāsi, is now connected with it only during the rains. The Ichāmatī is now merely an offshoot of the Mātābhānga. During the rainy season the Mātābhānga is navigable by large boats and river steamers, but during the dry season it is almost always closed to traffic.

Mātābhānga Village.—Head-quarters of a subdivision of Cooch Behār State, Bengal, situated in 26° 23′ N. and 89° 50′ E., on the emigration road to Assam. Population (1901), 1,283. It contains a high school.

Mātāmuhari.—River of Eastern Bengal and Assam. Rising in the range of mountains dividing Arakan from Chittagong, in 21° 14′ N. and 92° 36′ E., it flows north-west through the Chittagong Hill Tracts, and, turning westward as it leaves the hills, forms a broad delta as it pours into the Bay of Bengal, in 21° 45′ N. and 91° 57′ E., after a course of 96 miles. It was up the mouths of this delta that the storm-wave of October, 1897, rushed with tremendous violence, destroying every living creature within its range. The delta is of Sundarban character, consisting of groups of islets intersected by a network of tidal creeks and covered by mangrove jungle. This is rapidly being cleared; the lands are being embanked to exclude the salt water, and the creeks are silting up, and rich crops of rice are grown with but scanty tillage on these virgin soils built up by river silt. The principal place on its banks is Chakiriā, a good-sized village where there is a police station.

Mātar.—Western *tāluka* of Kaira District, Bombay, lying between 22° 26′ and 22° 50′ N. and 72° 30′ and 72° 47′ E., with an area of 216 square miles. Besides the main portion, some isolated villages lie separated from the rest by belts of Baroda and Cambay territory. The *tāluka* contains one town, Mātar (population, 4,001), the head-quarters; and 81 villages. The population in 1901 was 61,522, compared with 79,285 in 1891. The density, 285 persons per square mile, is much below the District average. The land revenue and cesses in 1903–4 amounted to more than 3 lakhs. The country lacks natural drainage, so that the climate is malarious during the rains. Rice lands are found in many parts.

Matāri.—Town in the Hāla *tāluka* of Hyderābād District, Sind, Bombay. *See* MATIĀRI.

Māthābhānga.—River in Bengal. *See* MĀTĀBHĀNGA.

Māthābhānga.—Town in Cooch Behār State, Bengal. *See* MĀTĀ-BHĀNGA.

Mātherān ('The wooded head,' or 'the mother's wood').—Hill sanitarium in the Karjat *tāluka* of Kolāba District, Bombay, situated in 18° 58′ N. and 73° 16′ E., 2,460 feet above sea-level, about 30 miles east of Bombay city. The hill was explored in May, 1850, by Mr. Hugh Malet, of the Bombay Civil Service, and to him belongs the credit of making its advantages known. It is delightfully situated on an outlier of the Western Ghāts, commanding noble views of the plain which separates the mountain chain from the sea. The traveller proceeds from Bombay by the Great Indian Peninsula Railway to Neral station (54 miles), at the north-east foot of the hill, and thence to Mātherān (7 miles) by palanquin or pony. The road winds upwards through rich forests, and though broad enough for two ponies is unfit for carriages or carts. Mātherān has recently been connected with Neral station by a 2-ft. gauge mountain railway, similar to the Siliguri-Darjeeling line.

The summit, which has an area of about 8 square miles, consists of a main central block and two smaller side ridges or wings, thickly wooded and affording good riding ground. The central block has an average breadth of about half a mile, and stretches nearly north and south from the narrow ridge of Hart Point to the rounded bluff of Chauk in the south. It may be roughly divided into three parts: a north, middle, and south section. For about a mile from Hart Point to the Church plateau the northern section is thinly peopled, with only a broken line of houses separated by stretches of wood. On the Church plateau the houses stand closer together, and along the edge of the eastern cliff groups of huts and small shops cluster round the market-place. The slopes of the central portion are the thickest peopled part, with rows of closely grouped houses stretching across nearly the whole breadth of the hill.

The peculiar charm of Mātherān is its Points. These form, as it were, rocky promontories jutting into mid-air, from which the spectator looks down upon the valleys more than 2,000 feet below. In the morning the mist lies over the plains, and, as it gradually melts before the rising sun, discloses one by one the villages and fields which it has concealed beneath. The six leading Points or headlands are the Hart at the north and Chauk at the south of the central hill; Panorama Point at the north and Gārbat at the south of the east wing; and Porcupine Point at the north and Louisa at the south of the west wing. In addition to these, three other spots are known as the Artist, Sphinx, and Bartle Points. Of the several smaller bluffs the seven most important are: Alexander, Little Chauk, One Tree Hill, Danger, Echo, Landscape, and Monkey.

A very striking view is obtained, especially in the evening light, from Panorama Point. The level plain extends from the foot of the hill to the broken coast-line, about 40 miles off. The great city of Bombay, with its towers and shipping, lies under the sunset, and the ocean stretches beyond. Besides the beauty of the summit and of its views, a great charm in Mātherān is the plateau or terrace that almost encircles the hill from 200 to 300 feet below its crest. This belt has a rich soil, yearly freshened by mould washed down from the higher land. The hill-sides are scarred by several small streams, which, though dry during the greater part of the year, bear in their clean-swept rocky channels traces of the strength of their monsoon floods. The rides through the woods have a special freshness from the sea-breeze; and, although the elevation is not lofty enough to counteract the heats of summer, it suffices to render Mātherān a cool and salubrious retreat for the citizens of Bombay during the spring and autumn months.

In spite of the heavy rainfall, even the largest streams cease to flow soon after Christmas. Of eleven springs, only two—Harrison's on the east and Malet's on the west of the main hill-top—last throughout the year. The latter has never been known to fail, and supplies the only drinking-water used by European visitors. Mātherān is singularly free from malaria; there is no marsh on any part of the hill, every stream bed is a bare rock, and in almost all seasons the forest can be entered without risk. This freedom from malaria makes Mātherān a healthy place to most visitors. The returns for the ten years ending 1903 give an average yearly rainfall of 251 inches. The thermometer readings show that, on an average, December and January are the coldest months, with a mean maximum of 66°, and May and June the warmest, with a mean of 82°.

According to the Census of 1901, the total number of inhabitants, inclusive of the local hill-men, was 3,060, rising to 4,738 in the hot season. The majority of visitors to Mātherān are Pārsīs, of whom the

greatest number come from Bombay. As a place of resort Mātherān has two seasons: after the rains in October and November, and from April 1 to the middle of June. The management of the station is entrusted to the Civil Surgeon, who, with the title of Superintendent, has within its limits the powers of a first-class Magistrate. Subject to the Collector of Kolāba, he has the entire management of the station, looking after the repairs of roads, settling the charges of palanquin-bearers, pony-keepers, and porters, and regulating the use of water, the conservancy arrangements, and the market. A municipality was established in 1905. The receipts are estimated at Rs. 15,000.

The chief public buildings are the post and telegraph offices, the Bairamjī Jījībhoy Hospital, the Superintendent's residence, the police lines, the resthouse, the hotels, market, the library, gymkhāna, a church, and a Catholic chapel. There is one school. The leading Points on the hill-top may be comfortably seen in three rides or walks from one of the hotels. Excursions may also be made to Prabal Point, where there is a fort of the same name, which signifies 'mighty.' For this place the excursionist starts from Louisa Point, which overlooks a majestic cliff, whence in the rainy season a cataract 100 feet in width falls into the valley below by a single leap of 1,000 feet. Until within the last fifty years, Mātherān hill was inhabited solely by wild forest races of non-Aryan origin and predatory habits—Dhangars, Thākurs, and Kāthkaris. These still linger on the slopes and at the foot of the hills, but their little communities have considerably declined in numbers. Some of them may still be seen at the weekly Sunday bazar on the hill. Interesting accounts of Mātherān have been published by J. Y. Smith, M.D. (Edinburgh, 1871), and by Mrs. A. K. Oliver (Bombay, 1905).

Mathurā.—District, *tahsīl*, and city in the United Provinces. *See* MUTTRA.

Mathwār.—*Thakurāt* in the BHOPĀWAR AGENCY, Central India.

Matiāri (*Matāri*).—Town in the Hāla *tāluka* of Hyderābād District, Sind, Bombay, situated in 25° 36′ N. and 68° 29′ E., on a slight eminence, 20 miles south of Hāla town, and 16 miles north of Hyderābād. Population (1901), 6,608. The local trade includes grain, oilseeds, cotton, silk piece-goods, and sugar. Matiāri is said to have been founded in 1322, and possesses, besides a fine Jāma Masjid, built in 1803, the tombs of two saints of renowned sanctity. At these shrines annual fairs are held in September and October, and each is attended by from 2,000 to 3,000 Muhammadans. The municipality, established in 1868, had an average income during the decade ending 1901 of Rs. 9,000. In 1903–4 the income was Rs. 3,650. The town contains a dispensary and four schools, of which one is for girls.

Mātla.—Village in the District of the Twenty-four Parganas, Bengal. *See* CANNING, PORT.

Mātra Timba.—Petty State in KĀTHIĀWĀR, Bombay.

Mattāncheri.—Commercial capital of Cochin State, Madras, and head-quarters of the Cochin *tāluk*, situated in 9° 57′ N. and 76° 15′ E., on the backwater opposite to Ernākulam and adjoining the British town of Cochin. Area, 2½ square miles; population (1901), 20,061, of whom 9,466 are Hindus, 5,607 Christians, 4,489 Musalmāns, and 474 Jews. It is the centre of a considerable export and import trade, which is almost entirely in the hands of Baniās and Cutchi Memons from the Bombay Presidency. There are several steam oil-mills in the neighbourhood, and a hydraulic press in the centre of the town. Mattāncheri is said to have been formerly the capital of the State, and contains a spacious old palace of quaint Dutch design, where the Rājās of Cochin are still installed. Historically the most interesting part of the place is what is known as the Jews' Town, which is exclusively inhabited by the White and Black Jews. They settled here after their expulsion from Crānganūr by the Portuguese in the sixteenth century, and formed a prosperous colony. But of late years they have been declining in both numbers and affluence. They have three old synagogues in the town. Among modern institutions of note are the large and richly endowed Konkani temple of Tirumala Devaswam, and the women and children's hospital, which contains accommodation for 20 in-patients.

Mau Tahsīl (1).—Eastern *tahsīl* of Bāndā District, United Provinces, conterminous with the *pargana* of Chhībūn, lying along the Jumna, between 25° 5′ and 25° 24′ N. and 81° 7′ and 81° 34′ E., with an area of 316 square miles. It is included in the Karwī subdivision of the District. Population fell from 73,658 in 1891 to 64,921 in 1901. There are 164 villages and one town, RĀJĀPUR (population, 5,491). The demand for land revenue in 1903–4 was Rs. 86,000, and for cesses Rs. 14,000. The density of population, 205 persons per square mile, is slightly below the District average. In the south the outer range of the Vindhyas crosses the *tahsīl* in three terraces. The forests and jungles are gradually diminishing, owing to the export of wood to Allahābād. In 1903–4 less than one square mile was irrigated, out of 132 square miles under cultivation.

Mau Tahsīl (2).—*Tahsīl* of Jhānsi District, United Provinces, conterminous with the *pargana* of the same name, lying between 25° 6′ and 25° 29′ N. and 78° 49′ and 79° 19′ E., with an area of 439 square miles. Population fell from 115,724 in 1891 to 100,298 in 1901. There are 164 villages and only one town, MAU-RĀNĪPUR (population, 17,231), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 1,23,000, and for cesses Rs. 21,000. The density of

population, 228 persons per square mile, is considerably above the District average. The *tahsīl* is bounded on the east by the Dhasān river, but towards the south and west is much intermixed with portions of Orchhā State. The southern portion is generally wild and hilly, dotted with artificial lakes and fertile irrigated valleys, but displaying also great tracts of barren waste. In the centre the country is more open and there is little irrigation. Farther north again the soil is chiefly black soil, deteriorating near the wild nullahs which fringe the Dhasān; this part has suffered much from the inroads of *kāns* (*Saccharum spontaneum*). In 1902-3 the area under cultivation was 190 square miles, of which 13 were irrigated, wells supplying more than three-fourths of the irrigated area.

Mau Town (1).—British cantonment in Indore State, Central India. *See* MHOW.

Mau Town (or Maunāth Bhanjan) (2).—Town in the Muhammadābād *tahsīl* of Azamgarh District, United Provinces, situated in 25° 57′ N. and 83° 34′ E., on the right bank of the Tons and on the Bengal and North-Western Railway, at the junction of the branch from Shāhganj through Azamgarh town with the line from Gorakhpur to Benares. Population (1901), 17,696. The town is of some antiquity, though the date of its foundation has not been ascertained. It is mentioned in the *Ain-i-Akbarī* as the head-quarters of a *mahāl* or *pargana*; and during the reign of Shāh Jahān that emperor bestowed the town upon his daughter, Jahānārā Begam, and it received in a special degree the royal favour. A *sarai* built by this lady still exists. At that period the town is said to have contained 84 *muhallas*, or wards, and 360 mosques. At the time of the cession to the British, Mau was held in *jāgīr* by one of the Oudh Begams; but the town had suffered severely from previous misrule, and has never regained its former prosperity. A commercial resident was appointed for Mau and Azamgarh in 1802; and in addition to the ordinary country traffic, investments in Mau cloths were made for some years on behalf of the Company. Private enterprise kept up the trade for a time after the abolition of the Company's monopoly; but the introduction of English-made yarn and cloth gave a great blow to it. Since the opening of the railway, however, trade has revived to some extent, and fewer weavers leave the town to seek employment in the mills of Bombay and Calcutta. The population largely consists of fanatical Julāhās (Muhammadan weavers), and religious friction is always present. In 1893 Mau was the scene of sanguinary riots, arising from the agitation against the slaughter of kine. There are no public buildings besides the dispensary, police station, and post office; but Mau is an important railway centre, and contains the head-quarters of an Engineer, a District Traffic Superintendent, and a Locomotive Superintendent. It is administered under Act XX

of 1856, with an income of about Rs. 3,000. Muslin and satin are largely woven, and there is a small manufacture of silk. There are two schools for boys with 83 pupils, and two for girls with 77.

Mau Aimma.—Town in the Soraon *tahsīl* of Allahābād District, United Provinces, situated in 25° 42′ N. and 81° 56′ E., on the metalled road from Allahābād city to Fyzābād and on a branch of the Oudh and Rohilkhand Railway. Population (1901), 6,769. This was the first place in the District in which plague broke out in 1899, having been imported direct from Bombay. Mau Aimma is administered under Act XX of 1856, with an income of about Rs. 1,000. It was once celebrated for its cotton cloth; but the industry has declined and many of the Julāhā inhabitants (Muhammadan weavers) now seek work in Bombay. There is, however, a flourishing local traffic in grain, cloth, cotton, sugar, and tobacco, which is likely to increase since the opening of a railway. The school has about 64 pupils.

Ma-ubin District (*Ma-u* tree, *Nauclea Cadamba*).—District of the Irrawaddy Division, Lower Burma, lying between 16° 30′ and 17° 25′ N. and 95° 15′ and 95° 55′ E. It is bounded on the north by Henzada District; on the east by Hanthawaddy; on the west by Myaungmya and Bassein; and on the south by Pyapon. The District is at the head of the lower delta of the Irrawaddy, which enters it on the north, and shortly afterwards, at the upper end of what is known as Ma-ubin Island, sends an important offshoot called the To or China Bakīr river to the east. The main stream, under the name of the Yazudaing, passes on to the south-west, and divides into a number of other tidal channels in Myaungmya and Pyapon Districts. The surface of the country is generally low, the greater part being subject to annual inundation, except where protected by embankments. During the rains the Irrawaddy rises about 25 feet higher than in the dry season, and, where unhindered by dikes, spreads over the country and forms vast lakes, out of which the higher lands emerge like islands. As is the case with all silt-depositing rivers, the surface of the country close to the banks is higher than it is inland, so that between the main streams there is not a watershed but a depression. These low-lying plains are covered with long grass interspersed with trees, and, though very fertile, are generally too deeply flooded to be cultivable. Lying within the main banks of the river are numerous large sandbanks and islands, flooded during the rains, but furnishing excellent ground for vegetable gardens in the dry season and extensive grazing grounds for the cattle. The permanent cultivation, except where there are embankments, is practically confined to the land immediately adjoining the main banks of the river.

Physical aspects.

The District is an alluvial flat, unbroken by any rising ground, and it cannot be said to possess any geological features worthy of record. The vegetation, which is largely swamp, resembles that in HANTHAWADDY DISTRICT, in the tracts farther from the sea. The fauna is similar to that of MYAUNGMYA and PYAPON. The elephant and tiger are scarce, but leopards are not uncommon and crocodiles abound.

The climate is generally healthy, but at the same time most enervating. The approximate mean temperature is about 82°. Low-lying and moist, the District swarms with mosquitoes. The European houses at the head-quarters are provided with rooms of which the doors and windows are made of perforated zinc to keep out these pests, and in places the villagers have to protect not only their own bodies but those of their cattle at night by means of gauze curtains. Though the District is wet and flat, disastrous floods are extremely rare, owing to the embankments; and when they occur, they are restricted to small areas.

The rainfall is heaviest in the south, averaging 92 inches at Ma-ubin, 83 inches at Pantanaw, 80 inches at Yandoon, and 72 inches at the northernmost station, Danubyu, or an annual average of 82 inches for the District altogether. In the north it is more variable than in the south, but on the whole it is fairly regular and seldom insufficient.

History.

Danubyu, in the north of the District, on the western bank of the Irrawaddy, is the only place of historical importance. It is famous for the stand made against the British by the Burmese general, the Mahā Bandula, in 1825. The side of the fort facing the river was nearly a mile long, and behind it was a garrison of 20,000 men. This position was unsuccessfully attacked by two columns under General Cotton, the greater part of the troops engaged being killed or wounded. Reinforcements were applied for, and the Commander-in-Chief, Sir Archibald Campbell, brought up his batteries. On the first day of the bombardment the Mahā Bandula was killed by the bursting of a shell, and the Burmans thereupon evacuated the place. In the War of 1852 no attempt was made to hold Danubyu; but after the occupation of Prome a force was gathered by an ex-*thugyi* named Nga Myat Tun, who repeatedly drove back, with considerable loss, the small detachments sent against him. After some delay his stronghold was carried by a larger British force, and the country gradually settled down. Part of the fort walls are still to be seen at Danubyu, occupied by monasteries; and under the shadow of the Nandawgon pagoda is a small cemetery containing the remains of those who fell in the second War.

Originally part of Henzada and Rangoon, a new District, embracing the present Ma-ubin District, and called after the village of Thongwa near Ma-ubin, was formed in 1875. This area was divided, in consequence of the rapid spread of cultivation and large increase in the population, first in 1893 on the formation of Myaungmya District, and again in 1903 when the District of Pyapon came into existence. At the last change the name of Ma-ubin was substituted for that of Thongwa.

The population of the area now forming Ma-ubin District was 176,000 in 1881; 216,930 in 1891; and 283,122 in 1901. Its distribution in 1901 is shown in the following table:—

Township.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Ma-ubin . .	522	1	118	77,792	149	+ 58	21,800
Pantanaw . .	483	1	92	62,374	129	+ 29	16,416
Yandoon . .	331	1	81	57,923	175	− 1	14,285
Danubyu . .	305	1	127	85,033	278	+ 39	18,087
District total	1,641	4	418	283,122	173	+ 30	70,588

The chief towns are YANDOON and MA-UBIN, the District headquarters. The decrease of population in the Yandoon township during the ten years ending 1901 is largely due to a falling off in the inhabitants of Yandoon town, the trade of which was killed by the opening of the railway to Mandalay. Elsewhere the growth during the decade in question has been conspicuous, being largely due to the attractions presented by the rich delta areas to the inhabitants of the poorer tracts farther north. The stream of immigration flows mainly from the Districts of Magwe, Myingyan, Mandalay, Pakokku, and from the Upper and Lower Chindwin. By far the greater part of the population is Buddhist; in 1901 Musalmāns numbered 3,500 and Hindus 4,800. In all 200,000 of the population spoke Burmese, and 70,000 Karen.

Between two-thirds and three-fourths of the population are Burmans: of the balance the greater part is made up of Karens, who numbered 70,000 in 1901, forming nearly half of the population of the Pantanaw township, one-fourth of that of the Yandoon township, and a fifth of that of the Ma-ubin township. Not quite 60 per cent. of the population is agricultural. Owing to territorial changes, it is not possible to show from the census figures the occupations of the remainder, most of whom are doubtless petty traders or fishermen.

The native Christian population in 1901 numbered 5,100 (mainly

Karen converts). The American Baptist Mission works among the Karens (Pwos and Sgaws), and Roman Catholic missionaries have stations at Ma-ubin and Yandoon. Both these missions maintain schools.

Agriculture.

The soil is a stiff yellow clay, deficient in lime, but well adapted to the cultivation of rice. It is so rich that systematic ploughing is rarely resorted to. Large areas, especially in the inundated tracts, are not ploughed at all, but the long grass is cut down and burnt, and the rice sown broadcast without transplanting. The lands along the margins of the rivers, enriched by an annual deposit of silt, produce tobacco, chillies, and other crops. The whole of the Danubyu and most of the Ma-ubin township, with parts of Pantanaw and Yandoon, are protected by embankments. The largest of these is the Ma-ubin Island embankment, nearly 80 miles in length, which encloses a large area to the west of the town of Ma-ubin. A somewhat smaller area to the east is protected by the Thongwa Island embankment, between 30 and 40 miles in length. In the north of the District is the southern end of the Henzada embankment, which extends along the western bank of the Irrawaddy for nearly 40 miles, ending near the town of Pantanaw. The area thus protected is approximately 360 square miles. On unprotected lands the deposit of silt is artificially increased by cutting channels through the high banks, at right angles to the river, to the low-lying country beyond. This artificial raising of the level enables crops to be grown on stretches which would otherwise be too low for cultivation.

The cropped area increased from 312 square miles in 1890–1 to 562 in 1900–1. For 1903–4 the main agricultural statistics (in square miles) are as follows:—

Township.	Total.	Cultivated.	Irrigated.	Forests.
Ma-ubin	522	216	0·2	20
Pantanaw	483	125	0·1	
Yandoon	331	109	0·3	
Danubyu	305	178	0·4	
Total	1,641	628	1	20

The area under rice (all *kaukkyi*) in 1903–4 was 533 square miles, and that under plantains and other fruit trees 17,000 acres. Tobacco, mostly in Danubyu, covered 3,500 acres, and chillies in Pantanaw 6,300 acres. The average rice holding measures a little over 20 acres. Holdings are smaller in the north than in the south.

There is a certain amount of cattle-breeding. Few ponies are kept, as there is little use for them. Reserves for grazing are more than 45,000 acres in extent.

Fisheries.

The fisheries are usually in fresh-water lakes and streams connected with the Irrawaddy, and subject to tidal influence, but affected to a much greater extent by the monsoon floods. They are mostly in the southern townships of Pantanaw and Ma-ubin. All but a small part of the revenue is derived from leased fisheries, which realized more than $7\frac{1}{2}$ lakhs in 1903-4, almost one-third of the total revenue in the Province from this source. The waters leased are carefully demarcated and mapped, and the right to fish is let by auction every three years. Licences for netting are also issued and are made use of in the navigable waterways. These yielded in the same year Rs. 12,800. The leased fisheries are usually worked by means of weirs and bamboo traps. An exhaustive inquiry made by Major Maxwell between 1897 and 1899 resulted in the larger fisheries being subdivided, and none now yields much over Rs. 7,000 a year. The fresh fish is taken to Rangoon and other places by boat. A great deal is made into fish-paste (*ngapi*), and exported to all parts of Burma. The industry has declined with the spread of cultivation, the rule being that where the interests of the fisherman and the cultivator are irreconcilable those of the former must yield. The construction of embankments, the chief enemy of the fisherman, has now probably reached its limit, and to avoid disputes the spheres of interest of the fisherman and the cultivator have been delimited. The fisherman's average profits are lower than the cultivator's, partly because the industry is highly speculative and, though the takings are occasionally enormous, losses are very common; partly because fishing is the hereditary occupation of the earlier Talaing inhabitants, who cling to it for sentimental reasons. The fisheries are looked after by a special staff of two *inkunwuns* and four inspectors.

The forests are unimportant, consisting of five small Reserves in the Yandoon subdivision, with an area of only 20 square miles.

Trade and communications.

No artistic work is produced in the District. The manufacture of fine mats from the reed called *thin* (*Phrynium dichotomum*) gives employment to a number of women in the north. The reed, after being steeped in water, is split and the rind peeled off in two layers. The outer rind is smoother than the rest and is woven separately into a fine mat, under which a coarser one, made of the inner rind, is placed. The two are then tacked together and the result is the *thinbyu*, the Burman's ordinary bed. A smart mat-weaver can turn out a mat 6 feet by $2\frac{1}{2}$ feet in one day. A few rice-mills are worked in the District.

The principal exports are rice, fish-paste (*ngapi*) dispatched from Yandoon to all parts of Burma, and horns and hides. They are

practically all river-borne. A good deal of firewood goes to Rangoon. The imports consist for the most part of hardware, piece-goods, and kerosene oil.

In 1903-4, 48 miles of metalled roads and 18 miles of unmetalled roads were maintained from the District cess fund. In addition, a number of unmetalled roads are kept up from Provincial funds, but the numerous waterways provide the chief communications. The majority of the larger creeks and streams, with which the southern areas are intersected, are navigable by light-draught steamers, launches, and boats. Ma-ubin is well served by the steamers and launches of the Irrawaddy Flotilla Company, and to a small extent also by launches and boats belonging to natives. There are 14 licensed ferries.

Administration.

For administrative purposes the District is divided into two subdivisions: Ma-ubin, comprising the MA-UBIN and PANTANAW townships; and Yandoon, comprising the YANDOON and DANUBYU townships. These are under the usual executive officers, assisted by 422 village headmen. The District forms a subdivision of the Myaungmya Public Works division, and is included in the Henzada-Thongwa Forest division.

Ma-ubin forms part of the Delta (judicial) Division, and the Divisional Judge tries sessions cases. Till recently the judicial work was performed by the executive staff; but the new scheme has provided a special District Judge, with head-quarters at Myaungmya, who exercises jurisdiction in Ma-ubin, Myaungmya, and Pyapon, a subdivisional judge for Ma-ubin, and three township judges, one for Ma-ubin, one for Pantanaw and Yandoon, and one for Danubyu. The crime of the District presents no special features.

The method of assessing land revenue under the Burmese régime varied in different localities, but the recognized demand was based on the number of yoke of plough cattle used by the cultivator, and amounted to about half the gross out-turn. The first settlement was made in 1868, when a uniform rate of Rs. 1-12 per acre was levied on all classes of cultivation in the Danubyu township. In 1869-70 further portions of the District were settled. The rates of assessment then imposed ranged from Rs. 1-4 to Rs. 2-4 per acre, according to the distance of the land from Rangoon and the fertility of the soil. In 1879-80 these were summarily enhanced in certain circles by amounts varying from 6 to 25 per cent.; and in 1889-91 the rates ranged from Rs. 1-8 to Rs. 2-8. The first regular settlement of the whole District was made between 1888 and 1891, when rates were fixed ranging from Rs. 1-8 to Rs. 3 per acre for rice cultivation, and from Rs. 2 to Rs. 3 for orchards; vegetables, tobacco, &c., were assessed at Rs. 2 per acre.

The following table shows, in thousands of rupees, the growth of the District revenue since 1881:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	3,00	6,00	8,00	9,53
Total revenue . .	14,00	15,00	16,00	26,64

The District cess fund is made up of a rate of 10 per cent. on the land revenue, with receipts from markets and other sources, bringing the total to 1·4 lakhs in 1903-4. About a fourth of this is contributed to Provincial funds, and Rs. 17,300 is spent on education, Rs. 10,000 on District launches, Rs. 13,500 on postal communications, Rs. 5,300 on hospitals, and the balance mostly on roads and resthouses. YANDOON and MA-UBIN are municipalities, and DANUBYU is managed by a town committee.

Under the District Superintendent of police are 2 Assistant Superintendents in charge of the two subdivisions, with a subordinate force consisting of 4 inspectors, 7 head constables, 30 sergeants, and 203 constables, distributed in 6 police stations and 8 outposts. The total strength of military police is 155 of all ranks, with 3 native officers. Of these, 90 are stationed at the District head-quarters, the rest being distributed at the three outlying township head-quarters; their duties are mainly the escort of prisoners and treasure.

Ma-ubin possesses a District jail, with accommodation for 389 prisoners. The usual industries are carried on; but special reference may be made to the manufacture of jute money-bags, which are supplied by Ma-ubin to all the Government treasuries in the Province. The jail is almost self-supporting, as it grows its own rice and manufactures its own *ngapi*.

The percentage of literate persons in Ma-ubin District in 1901 was 41 in the case of males and 7 in that of females, or 25 for both sexes, which for a delta District with a considerable Indian immigration is fairly high. In 1904 the District contained 11 secondary, 185 primary, and 167 elementary (private) schools, with a total attendance of 7,394 boys and 1,377 girls. The expenditure on education amounted to Rs. 28,600, including Rs. 17,300 from Local funds, Rs. 4,300 from municipal funds, Rs. 5,100 from fees, and Rs. 1,700 from Provincial funds. Subscriptions amounted to only Rs. 200.

There are hospitals at Ma-ubin, Yandoon, and Pantanaw, and a dispensary at Danubyu. The hospitals have accommodation for 52 in-patients. In 1903 the number of cases treated was 22,420, including 659 in-patients, and 873 operations were performed. The income amounted to Rs. 11,000, towards which municipal funds contributed Rs. 8,000, and the District cess fund Rs. 2,500.

Vaccination is compulsory within the limits of the Yandoon and Ma-ubin municipalities. In 1903–4 the number of successful vaccinations was 6,136, representing 13 per 1,000 of population.

[H. M. S. Mathews, *Settlement Report* (1893); Major F. D. Maxwell, *Report on Inland and Sea Fisheries* (1904); B. Samuelson, *History of Embankments, Henzada Division* (1899).

Ma-ubin Subdivision.—Subdivision of Ma-ubin District, Lower Burma, consisting of the MA-UBIN and PANTANAW townships.

Ma-ubin Township.—Township of Ma-ubin District, Lower Burma, lying between 16° 30′ and 16° 56′ N. and 95° 27′ and 95° 52′ E., with an area of 522 square miles. The head-quarters are at MA-UBIN (population, 6,623), also the head-quarters of the District. In addition to the town of Ma-ubin, it contained 118 villages in 1901, and at the Census of that year had a population of 77,792, compared with 48,200 in 1891. The township, which is a dead level throughout, lies in the heart of the delta country, being bounded on the west by the Irrawaddy and traversed by the To or China Bakīr river. The great majority of the population are Burmans, about one-fifth being Karens. The area cultivated in 1903–4 was 216 square miles, paying Rs. 3,44,000 land revenue.

Ma-ubin Town.—Head-quarters of the District of the same name, Lower Burma, situated in 16° 44′ N. and 95° 42′ E., along the right bank of the China Bakīr stream, in the heart of the delta country. Population (1901), 6,623. Approximately three-quarters of the population are Burmans. Hindus number rather less than 1,000, and Musalmāns are about half as numerous as Hindus. The town is of comparatively recent creation and had achieved no notoriety before 1874, when it was chosen as the head-quarters of the new delta District of Thongwa. It is flat and barely above flood-level, and during the greater part of the year swarms with mosquitoes. The jail and the usual public buildings stand near the river bank. Ma-ubin was constituted a municipality in 1888. The receipts of the municipal fund during the ten years ending 1900–1 averaged Rs. 24,500, and the expenditure Rs. 24,600. In 1903–4 the municipal income amounted to Rs. 54,000, the chief sources being markets, &c. (Rs. 18,000), and area and frontage tax (Rs. 2,500); and the expenditure amounted to Rs. 34,000, including conservancy (Rs. 7,300), hospital (Rs. 4,500), and education (Rs. 2,500). The principal schools are those maintained by the American Baptist and Roman Catholic Missions, while the municipality keeps up a hospital. Ma-ubin is one of the principal ports of call in the delta for the steamers of the Irrawaddy Flotilla Company, and is a thriving trade centre for paddy and *ngapi*.

Maudahā Tahsīl.—*Tahsīl* in Hamīrpur District, United Provinces, comprising the *parganas* of Maudahā and Muskirā, and lying

between 25° 30′ and 25° 52′ N. and 79° 43′ and 80° 21′ E., with an area of 452 square miles. Population fell from 103,900 in 1891 to 87,322 in 1901, or by 19 per cent. There are 130 villages and one town, MAUDAHĀ (population, 6,172), the head-quarters. The demand for land revenue in 1904–5 was Rs. 1,76,000, and for cesses Rs. 36,000. The density of population, 193 persons per square mile, is below the District average. On the east the *tahsīl* is bounded by the Ken, and on the west by the Birmā. It contains a large proportion of fertile black soil; but the north-west is very inferior, and the land near the rivers is cut up by ravines. In 1902–3 the area under cultivation was 230 square miles, of which only 2 were irrigated.

Maudahā Town.—Head-quarters of the *tahsīl* of the same name, in Hamīrpur District, United Provinces, situated in 25° 40′ N. and 80° 7′ E., on the Cawnpore-Saugor road. Population (1901), 6,172. According to tradition a Muhammadan, named Husain, with the help of some Parihār Rājputs, expelled the Kols who resided here and took possession of the place. In 1730 Diler Khān, a son of the governor of Allahābād, was slain here, and his tomb attracts a considerable number of votaries. The fort was first built by Khumān Singh and Gumān Singh of Charkhārī, and on the same site Alī Bahādur of Bāndā afterwards erected a stone fort. The town contains a *tahsīlī*, and is administered under Act XX of 1856, with an income of about Rs. 1,100. The silver ware produced here in small quantities has some merit. There is a branch of the American Mission, and a middle school with 101 pupils.

Mauganj Tahsīl.—North-eastern *tahsīl* of Rewah State, Central India, lying between 24° 32′ and 24° 54′ N. and 81° 41′ and 82° 20′ E., north of the Kaimur range, with an area of 784 square miles. Most of the *tahsīl* is part of the alluvial plain on which the town of Rewah stands, and is covered with fertile soil. To the north it is traversed by the easternmost section of the Pannā range, known locally as the Binjh hills. The population fell from 123,486 in 1891 to 99,534 in 1901, giving a density of 127 persons per square mile. There are 609 villages, the head-quarters being at MAUGANJ. The land revenue is 2·1 lakhs.

Mauganj Village.—Head-quarters of the *tahsīl* of the same name in Rewah State, Central India, situated in 24° 40′ N. and 81° 52′ E. Population (1901), 1,804. The village is composed of the two separate hamlets called Mau and Ganj. It stands on the great Deccan road, 40 miles to the east of Rewah town, 61 from Mirzāpur, and 80 from Satnā. An inspection bungalow, a school, and a British post office are situated at Mauganj.

Maulavibāzār.—Head-quarters of the South Sylhet Subdivision, Sylhet District, Eastern Bengal and Assam. *See* SYLHET, SOUTH.

Maulmain.—Town in Amherst District, Lower Burma. *See* MOULMEIN.

Maungdaw.—Westernmost township of Akyab District, Lower Burma, lying between 20° 18′ and 21° 27′ N. and 92° 11′ and 92° 43′ E., with an area of 426 square miles. It consists of a strip of coast land on the shore of the Bay of Bengal, abutting on the southern end of the Chittagong District of Bengal. The population was 65,407 in 1891 and 83,247 in 1901, giving a density of 195 persons per square mile. There are 377 villages. It is a favourite resort for immigrants from Chittagong, and about three-fourths of its inhabitants profess the Musalmān faith. This foreign element has caused the population of the township to increase during the last decade 27 per cent. The head-quarters are at Maungdaw (population, 1,735), on the eastern shore of the Naaf estuary, which separates Burma from Bengal. Away from the coast the land is hilly. The area cultivated in 1903–4 was 128 square miles, paying Rs. 1,80,000 land revenue.

Mau-Rānīpur.—Head-quarters of the Mau *tahsīl* of Jhānsi District, United Provinces, situated in 25° 15′ N. and 79° 9′ E., on a branch of the Great Indian Peninsula Railway. Population (1901), 17,231. The municipality includes two towns, Mau and Rānīpur, separated by a distance of about four miles. Mau was a small agricultural village till the latter part of the eighteenth century, when the exorbitant demands of the Rājā of the neighbouring State of Chhatarpur led to an exodus of merchants and others who settled here. The place became noted for its manufacture of the coarse red cotton cloth known as *khāruā*. It was for long the chief town in the District, but the restoration of Jhānsi city to the British and the alteration in trade routes made by railways have increased the importance of the latter place. Mau is also losing its trade in *khāruā*, as the vegetable dye which was used in its preparation is giving way to aniline. Besides the ordinary offices Mau contains a dispensary. It is a remarkably picturesque town; its houses are built with deep eaves between the first and second storeys, and hanging balcony windows of unusual beauty. The principal temple is that of the Jains (who form an important commercial body), which is very little enclosed, and presents a fine appearance with its two solid spires and many cupolas. Mau has been a municipality since 1869. During the ten years ending 1901 the income and expenditure averaged Rs. 16,000. In 1903–4 the income was Rs. 21,000, chiefly from octroi (Rs. 15,000); and the expenditure was Rs. 18,000. As stated above, the trade in cloth is decreasing, but agricultural produce is still largely exported. There is a small manufacture of brass, and an important cattle fair is held here. Six schools have about 209 pupils.

Maurāwān.—Town in the Purwā *tahsīl* of Unao District, United Provinces, situated in 26° 26′ N. and 80° 53′ E., on the road from Unao town to Rāe Barelī. Population (1901), 7,911. The place first became of importance early in the nineteenth century as the residence of a Khattrī banker, who gradually acquired a large *taluka*. During the Mutiny the *talukdār*, Gaurī Shankar, behaved with unshaken loyalty and was one of the five *talukdārs* whose estates were exempted from confiscation. He was rewarded with the title of Rājā and a permanent settlement at a reduced revenue. Maurāwān contains a dispensary and three schools with 150 pupils, one school being maintained by the *talukdār*. There is little trade, but the jewellery and carpentry produced here have some reputation.

Māval.—*Tāluka* of Poona District, Bombay, lying between 18° 36′ and 18° 59′ N. and 73° 20′ and 73° 46′ E., with an area of 385 square miles. It contains two towns, LONAULĪ (population, 6,686) and TALEGAON-DĀBHĀDE (5,238); and 162 villages. The population in 1901 was 65,176, compared with 66,876 in 1891. The density, 169 persons per square mile, is below the District average. The demand for land revenue in 1903–4 was 1·2 lakhs, and for cesses Rs. 8,000. Three leading spurs from the Western Ghāts cross the *tāluka*. The largest passes east and west across its whole length in the south, a second penetrates to the centre, and the third forms the north-east boundary for about 20 miles. Māval is fairly wooded. The principal soils are red and grey; black soil is found only on the banks of rivers and large streams, of which the chief are the Indrāyani and Andhra. Rice is everywhere the principal crop. The rainfall varies greatly in different parts. It is heavy close to the Ghāts and considerably lighter near the eastern boundary. Hot winds are almost unknown, and the climate is generally cooler than in the east of the District. The south-east line of the Great Indian Peninsula Railway and the Bombay road both cross the *tāluka*. The villages, along or at short distance from the road, derive considerable advantage from the sale of grass for the numerous droves of cart- and pack-bullocks that daily halt at the different stages. The head-quarters are at Wadgaon, a small village near the station of the same name on the Great Indian Peninsula Railway.

Maw (Burmese, *Baw*).—The northernmost and second largest of the States of the Myelat division of the Southern Shan States, Burma, lying between 21° 11′ and 21° 43′ N. and 96° 19′ and 96° 50′ E., with an area of 550 square miles. It is bounded on the north by the Yeyaman tract of the Kyaukse District of Upper Burma; on the east by Lawksawk; on the south by Yengan; and on the west by Kyaukse District. The State falls into two natural divisions: the valley of the Zawgyi, its only important waterway, with the hills to the north of that

stream; and the Myelat plateau to the south. On the north, east, and west the State is bounded by mountain ranges, with peaks exceeding 5,000 feet in height. Rice, the chief crop, is grown in *taungyas* and on irrigated land in the Zawgyi valley; garden crops and *thanatpet* are also cultivated, but the total area under cultivation is not much more than 2,300 acres. The population in 1901 was 7,743 (distributed in 70 villages), of whom 6,884 were Burmese-speaking Danus, the rest Shans, Taungthus, and Palaungs. The principal village, where the Ngwegunhmu resides, is Myogyi (population, 1,002), close to the borders of Kyaukse. The revenue in 1904–5 amounted to Rs. 11,000, and the tribute to the British Government is Rs. 5,750.

Mawa.—Petty State in KĀTHIĀWĀR, Bombay.

Mawānā Tahsīl.—North-eastern *tahsīl* of Meerut District, United Provinces, comprising the *parganas* of Hastināpur and Kithor, and lying between 28° 50′ and 29° 16′ N. and 77° 47′ and 78° 8′ E., with an area of 431 square miles. The population rose from 177,868 in 1891 to 200,399 in 1901. There are 248 villages and four towns, the largest of which are MAWĀNĀ (population, 9,207), the *tahsīl* head-quarters, PARĪCHHATGARH (6,278), and PHALAUDA (5,214). In 1903–4 the demand for land revenue was Rs. 3,56,000, and for cesses Rs. 57,000. The *tahsīl* is the most sparsely populated in the District, containing only 465 persons per square mile against an average of 654. It consists of two distinct portions. The greater part lies in the upland area, which descends by a series of ravines to the Ganges *khādar* on the east. The uplands are intersected by well-marked ridges of sand, and have profited enormously by the irrigation supplied from the Anūpshahr branch of the Upper Ganges Canal, as wells are difficult and costly to make. The *khādar* is damp, and immediately below the edge of the upland lies a series of swamps marking an old bed of the Ganges, which now flows on the eastern boundary; a great part of it is fit only for grazing. In 1903–4 the area under cultivation was 273 square miles, of which 89 were irrigated.

Mawānā Town.—Head-quarters of the *tahsīl* of the same name in Meerut District, United Provinces, situated in 29° 6′ N. and 77° 57′ E., 17 miles north-east of Meerut city. Population (1901), 9,207. The town, according to tradition, was founded by Mana, a huntsman employed by the Kauravas. It contains a large brick-built tank, and on the banks of another, now ruined, stands a fine temple built in the sixteenth century. The municipality was constituted in 1886. During the ten years ending 1901 the income and expenditure averaged Rs. 5,000. In 1903–4 the income was Rs. 7,000, chiefly from a tax on circumstances and property (Rs. 3,000); and the expenditure was Rs. 8,000. There is little trade, and most of the inhabitants are cultivators. The town contains two middle schools with 136 pupils,

besides six primary schools with 164 pupils. The American Methodist Mission has a branch here.

Mawkmai (Burmese, *Maukme*).—State in the extreme south of the eastern division of the Southern Shan States, Burma, lying astride the Salween river, between 19° 35′ and 20° 26′ N. and 97° 25′ and 98° 32′ E., with an area (including the trans-Salween dependencies of Möngmaü and Mehsakun) of 2,787 square miles. The State is bounded on the north by Möngsit and Möngnai; on the east by Möngpan and its trans-Salween dependencies, which lie between it and Siam; on the south by Siam and Karenni; and on the west by Hsahtung. The central portion of the State proper is a wide fertile rice plain, to the east of which are hills extending to the cultivated Nam Teng valley. The lower part of this valley is chiefly given up to rice cultivation, and the upper part to tobacco, though considerable quantities of sesamum and sugar-cane are grown as well. Over the east of the State *taungya* (shifting) cultivation prevails. A large area is covered with forests, which in 1904 gave a revenue of Rs. 18,500. The Mehsakun dependency across the Salween is comprised in the basin of the Nam Hsakun, and is inhabited by Shans. West of it is the Möngmaü dependency, a mountainous tract only the south-eastern corner of which has any population. The title to these two dependencies was finally affirmed by the Anglo-Siamese Boundary Commission of 1892–3. The total population in 1901 was 29,454, distributed in 443 villages. About 23,000 were Shans, about 5,000 Taungthus, and the remainder Karens and other tribes. The head-quarters of the Sawbwa are at Mawkmai (population, 1,375), on the Nam Nyim, a tributary of the Nam Teng. The revenue in 1903–4 amounted to Rs. 42,000 (mainly from *thathameda*); the chief items of expenditure were Rs. 18,000 tribute to the British Government, Rs. 10,000 officials' salaries and general administration charges, Rs. 9,700 privy purse, and Rs. 4,000 public works.

Mawlu.—Northern township of Kathā District, Upper Burma, lying between 24° 18′ and 25° 7′ N. and 95° 50′ and 96° 36′ E., on both sides of the Sagaing-Myitkyinā railway, with an area of 1,344 square miles. The population was 6,206 in 1891, and 17,178 in 1901, distributed in 281 villages. The head-quarters are at Mawlu (population, 581), on the railway. The township is situated in the Meza and upper Namyin (or Mohnyin) valleys, and is separated from Kathā by the Gangaw range, on which the Kachin population lives. The rapid increase of population and cultivation apparent since 1891 is due to the railway, which has brought in a large number of immigrants. The township contained 18 square miles under cultivation in 1903–4, and the land revenue and *thathameda* amounted to Rs. 46,400.

Mawnang (Burmese, *Bawnin*).—Small State in the Myelat divi-

sion of the Southern Shan States, Burma, lying between 20° 38′ and 20° 44′ N. and 96° 44′ and 96° 51′ E., with an area of 40 square miles. It borders on Hsamönghkam on the west, and on the other sides on Yawnghwe. Rice is grown in the swampy ground in the north, but the rest of the State is rather arid, and the total cultivated area is only about 700 acres. The population in 1901 was 3,755 (distributed in 43 villages), of whom more than 2,000 were Taungyos, and the rest Taungthus, Shans, and Burmese-Shans. The residence of the Myoza is at Mawnang (population, 198), a little south of the Thazi-Fort Stedman road. The revenue in 1904–5 amounted to Rs. 3,900, and the tribute to the British Government is Rs. 2,000.

Mawsön (Burmese, *Bawzaing*).—Small State in the Myelat division of the Southern Shan States, Burma, lying between 20° 52′ and 21° 3′ N. and 96° 43′ and 96° 50′ E., with an area of 40 square miles. It is bounded on the north by Lawksawk; on the east by Yawnghwe; on the south by Poila; and on the west by Pangtara. The country consists of open rolling downs, like the greater part of the Myelat. The population in 1901 was 3,557 (distributed in 31 villages), of whom about 1,500 were Danus, 1,300 Taungthus, and the rest Taungyos. The residence of the Ngwegunhmu is at Mawsön (population, 203), in the south of the State. The revenue in 1904–5 amounted to Rs. 2,900, and the tribute to the British Government is Rs. 1,500.

Māyavaram Subdivision. — Subdivision of Tanjore District, Madras, consisting of the *tāluks* of MĀYAVARAM and SHIYĀLI.

Māyavaram Tāluk.—Coast *tāluk* in the north-east of Tanjore District, Madras, lying between 10° 58′ and 11° 15′ N. and 79° 31′ and 79° 52′ E., with an area of 283 square miles. The population in 1901 was 247,019, compared with 244,835 in 1891. In density it stands sixth of all the *tāluks* in the Presidency, this being due to its great agricultural advantages. It is situated wholly in the delta of the CAUVERY river, and more than 99 per cent. of the arable land is under occupation. Moreover, as it lies near the sea, it receives as much as from 50 to 53 inches of rain. Most of the land is irrigated, and on this rice is usually grown, though ground-nuts and gingelly are also raised in fair quantities. MĀYAVARAM TOWN, which is the head-quarters of the *tāluk*, is a municipality with a population of 24,276. The old Danish settlement of TRANQUEBAR, which lies 18 miles south-east and is now a declining port, has a population (inclusive of its suburb Poraiyār) of 13,142. Besides these two towns, there are 186 villages in the *tāluk*. The demand for land revenue and cesses in 1903–4 amounted to Rs. 8,88,000.

Māyavaram Town (*Māyūram*).—Head-quarters of the *tāluk* of the same name and the station of a Deputy-Collector, Tanjore District,

Madras, situated in 11° 6′ N. and 79° 39′ E., on the banks of the Cauvery, and at the junction of the South Indian Railway main line with the District board railway. Population (1901), 24,276. The town is held particularly sacred by Hindus. During the Tulā Cauvery festival (October and November) pilgrims gather from all parts of the Presidency to bathe in the holy river simultaneously with the idol of the local shrine. A large Vishnu temple stands on the northern bank of the Cauvery in Tiruvilandūr. The principal shrine, dedicated to Mayūranāthaswāmi, is a mile to the south of the river. Here Pārvati is said to have worshipped Siva in the form of a peacock (*mayūra*), and the name of the town is supposed to have been derived from this incident. Kornād, a suburb of Māyavaram, has long been famous as a weaving centre. The cloths woven here are worn by women of the higher classes throughout India. They are made of a mixture of silk and cotton thread, and are dyed in durable dark blue, red, and other colours. The industry is not prosperous, owing to the inability of the vegetable dyes used to hold their own against imported mineral dyes; and with its decline Māyavaram is tending to become a mere market for agricultural produce. The town was constituted a municipality in 1866. The receipts and expenditure during the ten years ending 1902-3 averaged Rs. 39,000. In 1903-4 the income, most of which was derived from school fees and house and land taxes, was Rs. 43,200; and the expenditure was Rs. 42,300. The municipal high school is a flourishing institution, and the fees derived from it now amount to more than a third of the total income of the municipality. Sanitation is hindered by the fact that the place lies low and has no proper drainage.

Maymyo Subdivision.—South-eastern subdivision of Mandalay District, Upper Burma, containing the PYINTHA, MAYMYO, and WETWIN townships.

Maymyo Township.—Hill township of Mandalay District, Upper Burma, lying between 21° 48′ and 22° 6′ N. and 96° 24′ and 96° 46′ E., with an area of 396 square miles, composed almost entirely of stretches of undulating scrub-covered upland. The population was 7,993 in 1891, and 13,730 in 1901, distributed in 101 villages and one town, MAYMYO (population, 6,223), the head-quarters. The inhabitants are mostly Danus. The *thathameda* collections in 1903-4 amounted to Rs. 30,000.

Maymyo Town.—Principal hill station of Burma, in Mandalay District, situated in 22° 1′ N. and 96° 28′ E., on the Mandalay-Lashio railway, at an elevation of 3,500 feet, and 422 miles by rail from Rangoon. The station occupies an undulating plateau, surrounded by hills covered with thin oak forest and bracken, and enjoys a temperate and, on the whole, a salubrious climate. The clearing of the jungle in

the immediate neighbourhood, and the draining of the swamps which used to occupy its low-lying areas, have made Maymyo much healthier than it was when first occupied; but even now it is not free from sickness at the beginning and end of the rains. As regards temperature, the average maxima in May, July, and December are 86° 77°, and 67°, and occasionally the thermometer reaches 90°. The average minima during the three months mentioned are 66°, 66°, and 38°, but as much as six degrees of frost has been recorded in the winter. The rainfall is comparatively light for a hill station. It averages 58 inches per annum, and is heaviest in May, June, September, and October.

Maymyo (formerly Pyinulwin) was the seat of a *ne-ok* (practically a township officer) under the government of Ava, and after its occupation by British troops in 1886 frequent operations were necessary to pacify the surrounding country, the last being in 1890. Since that date the town has prospered, the population in 1901 being 6,223 (including 2,016 Hindus and 821 Musalmāns), compared with 1,665 in 1891. The rapid extension of the station has attracted many Chinamen and natives of India, the former chiefly as carpenters and masons, the latter as general traders and coolies. There are now 23 miles of metalled roads, including a portion of the main road from Mandalay to Lashio which passes through the town, and a large number of buildings, public and private, all the more pretentious of which are of brick. The latter include a residence for the Lieutenant-Governor, a circuit-house, the Secretariat, and several *dāk* and inspection bungalows, besides offices for the subdivisional officer and the various officials of the Public Works and Forest departments who have their permanent head-quarters at Maymyo. Maymyo is now the head-quarters of the Lieutenant-General commanding the Burma division. The cantonment extends on both sides of the railway, partly on the high ground at the foot of the hills lying west of the town, where quarters are to be built for a British regiment. The permanent garrison consists of a Gurkha battalion.

The affairs of the town are administered by a committee, the income of which in 1903–4 was Rs. 83,000, devoted largely to conservancy. The cantonment fund had an income of Rs. 5,000 in the same year. A trade registration station is situated on the Mandalay-Lashio road to the east of the town. A reservoir in the hills to the west was completed in 1902, and the town is now supplied with excellent water. An additional reservoir is being constructed. When it is finished, the reserve water-supply will exceed 20 million gallons. Educational institutions include a Government high school, a girls' school supported by the Church of England, and a Roman Catholic school. The civil hospital, a collection of brick buildings built in 1903–4, has accommo-

dation for 20 in-patients. Near the hospital is the bazar, where a market is held once every five days.

Māyni.—Town[1] in the Khatao *tāluka* of Sātāra District, Bombay, situated in 17° 26′ N. and 74° 35′ E., 40 miles south-east of Sātāra town. Population (1901), 5,312 (including 1,622 persons returned in a famine relief camp). The municipality, which was established in 1867, had an income during the decade ending 1901 averaging Rs. 1,400. In 1903–4 the income was Rs. 1,650. The small stream on which Māyni stands has been dammed about a mile to the east, to increase the water-supply of the inhabitants as well as for irrigation purposes.

Mayo Mine.—Salt mine in the Pind Dādan Khān *tahsīl* of Jhelum District, Punjab, situated in 32° 39′ N. and 73° 3′ E. The mine lies in the SALT RANGE at the village of Khewra, 5½ miles north-east of the town of Pind Dādan Khān; and the mineral occurs in vast quantities, the deposits extending towards the summit of the hill above the village (1,650 feet above sea-level) and going down to a great depth below the present floor-level of the mine. When the salt was first worked is not known; but excavations existed on the spot as far back as the time of Akbar, and the miners have a tradition that their first settlement dates from the sixth century of the Muhammadan era. The existing mine was named after Lord Mayo in 1870. Under Sikh rule several mines were working in the hill; but the excavations were not made with any regard to economy or safety, and in consequence they have all either fallen in or are in danger of so doing. In 1869–70 a qualified mining engineer was appointed and a scientific system of working was introduced.

It is estimated that 534,512 tons had been excavated up to 1850, and from that year to the end of March, 1904, the out-turn was 2,572,705 tons. It is calculated that a further supply of 8½ million tons is easily accessible in the part of the hill which has been explored, and that large quantities exist in its unexplored parts beyond the limits of the existing mine. The mine has a maximum length of 1,405 feet, and is 2,691 feet broad at its widest part.

A bridge across the Khewra gorge carries a tramway by which the salt is conveyed to the dépôt from which it is issued. This bridge is 929 feet above sea-level, and as the mine is higher than the bridge, the working is greatly facilitated. Ample space for extension exists on the north, south, and east, but on the west the gorge precludes tunnelling without going much deeper than the existing floor. West of the gorge, however, stands a hill with four times the mass of the mine hill, and undoubtedly containing rich deposits as yet untouched.

In 1903–4 the mine gave daily employment to 1,205 persons, chiefly

[1] Māyni was not treated as a town at the Census of 1901.

belonging to the mining community, whose occupation is hereditary. They work in family parties, the women and children over twelve years of age assisting in the carriage of the salt from the excavations to the loading stations. A few outsiders are employed as porters and in loading or moving the trucks. The miners receive 10½ pies per cubic foot of space excavated, the payment covering the stacking of salt at the loading stations on the tramway. Government paid 1·4 lakhs in wages during 1903–4 for the mining and issuing of salt at Khewra and the special work connected therewith. For mining purposes the hill is divided into parallel blocks not exceeding 45 feet in width and running in the direction of the prevailing dip of the salt strata, alternating with similar blocks not less than 25 feet wide, in which no excavation is permitted except for tunnels, travelling ways, and loading stations for the tramways. These blocks, or pillars, which support the mine roof, are now generally 30 feet thick, and they are further strengthened by beds of marl which lie between the salt seams, and which are not removed when the salt is being excavated. The marl is impure salt, lying in beds of varying thickness between the seams of salt and thinning out as it dips down in the hill until eventually its place is taken by salt. Three tramways run through the mine, two of them being connected by a self-acting incline on which the loaded trucks draw the empty trucks up. The whole of the salt is carried to the dépôt outside the gorge in trucks which run by gravitation, but are hauled back empty by mules and ponies or are pushed back by men. The mine is intersected with tunnels which serve for ventilation as well as travelling ways. Rain-water is kept out by a network of drains at the surface, and most of the little water that percolates into the mine is caught up inside in masonry drains and flows out. In 1903–4 the Mayo Mine supplied 2,264,187 maunds, or 87·6 per cent. of the salt issued from the Cis-Indus and Kālābāgh Mines division. Of this, 98·8 per cent. was removed by the North-Western Railway, which runs to the salt dépôt at Warthganj at the mouth of the Khewra gorge, for distribution over the Punjab (including Kashmīr and other Native States), the United Provinces of Agra and Oudh, Bihār and (in small quantities) Lower Bengal, Sind, Baluchistān, and the Central Provinces. The revenue (duty) realized from the sale of Mayo Mine salt in 1903–4 amounted to 46·9 lahhs.

Mayūrbhanj.—The most northerly of the Tributary States of Orissa, Bengal, lying between 21° 17′ and 22° 34′ N. and 85° 40′ and 87° 10′ E. It is by far the largest of the Orissa States, and has an area of 4,243 square miles. It is bounded on the north by the Districts of Singhbhūm and Midnapore; on the east by Midnapore and Balasore; on the south by Balasore and the Nīlgiri State; and on the west by Keonjhar.

Mayūrbhanj presents every variety of soil and scenery. A block of hills occupies an area of about 1,000 square miles in the centre of the State, and abounds in rich valleys and dense timber forests. This region is almost unexplored at present, but efforts are being made to open it out by roads. In the south the Meghāsanī hill attains a height of 3,824 feet above the sea. Large herds of elephants roam through the mountains and forests, and successful *khedda* operations are carried on from time to time.

It is related in native chronicles that the principality of Mayūrbhanj was founded about 1,300 years ago by a relative of the Rājā of Jaipur in Rājputāna. The family title is Bhanja ('breaker'), which, it is said, was assumed after the overthrow of a chieftain named Mayūradhwaj, an event which is also believed to account for the present name of the State. The chief's emblem is a peafowl (*mayūr*), and there is another tradition which alleges that his family originally sprang from a peafowl's eyes; the killing of this heraldic bird is strictly prohibited throughout the State. The remains of ruined temples, tanks, &c., at KHICHING, near Udaipur, indicate a condition of considerable prosperity in the past. The State came under British control with the conquest of Orissa in 1803, prior to which it had been feudatory to the Marāthās; and in 1829 a treaty engagement was entered into between the British and the Rājā.

The enumerated population rose from 258,680 in 1872 to 385,737 in 1881, to 532,238 in 1891, and to 610,383 in 1901. A great deal of this remarkable increase must be ascribed to the defective character of the earlier enumerations. In the last decade the growth amounted to 14·7 per cent., and in 1901 the density was 144 persons per square mile. The climate is on the whole fairly healthy, except in the hills and jungle tracts, which are very malarious. The inhabitants are contained in one town, BARIPĀDĀ (population, 5,613), and 3,593 villages, of which the most important are BAHALDA and KARANJIĀ, the head-quarters of the Bāmanghāti and Pānchpīr subdivisions. Hindus number 507,738, Animists 98,485, and Muhammadans 3,785. The majority of the people are of aboriginal origin; the most numerous castes are Santāls (185,000), Hos (68,000), Bhumijs (56,000), Kurmīs (36,000), Bhuiyās (32,000), Gaurs and Bāthudis (30,000 each), Pāns (25,000), and Khandaits (15,000). A Baptist mission is at work at Baripādā and a Roman Catholic mission at Nāngalkāta, 8 miles from Baripādā on the Balasore road.

The people are almost entirely agricultural and lead an uneventful and contented life, so long as the harvests are good. About one-third of the State is under cultivation, and the remainder is either forest or waste. There is ample room for the extension of tillage, and large tracts are reclaimed each year under leases granted by the State. Rice

is the staple crop; *rabi* crops and peas and pulses are cultivated along the river banks, and sugar-cane and tobacco are also grown. Experiments are being made in the growth of long-stapled cotton. Forest conservancy now forms an important branch of the administration, but the forests are suffering severely from the ruthless destruction of former times.

A geological survey of the State was recently undertaken, and it is reported that its iron ores are possibly the richest and most extensive in India. They occur in all parts of the State, but especially in Bāmanghāti, where there are a considerable number of smelters working with crude apparatus. It is proposed to construct a branch line to carry the ore to Sini on the Bengal-Nāgpur Railway, where large iron and steel works are to be built. Limestone in the shape of tufa or travertine is found in several localities, also red and yellow ochres; and the clays underlying the laterite near Baripādā constitute an excellent material for pottery. Gold is washed for in the Subarnarekhā river on the northern confines of Mayūrbhanj proper, and in the Kadkai and Bonai rivers in the Bāmanghāti subdivision; at the head-waters of the latter river there is a tract of about 2 square miles where almost the entire alluvium is auriferous, and separated from it by a low range of hills is another area of placer deposit of similar extent. In these two localities about 70 families obtain a livelihood by gold-washing, but they only scrape the surface soil; nuggets weighing as much as 2 or 3 *tolas* are said to be found occasionally. Mica occurs extensively in both the Mayūrbhanj and Bāmanghāti subdivisions, but the plates obtained are small; and agate, flint, and jasper are found in some profusion in the latter subdivision.

The rearing of *tasar* cocoons and the cultivation of lac are extensively carried on, especially in Bāmanghāti. There is a considerable trade in forest produce, such as timber, lac, myrabolams, nux-vomica, honey, resin, and fuel. Horns and hides, rice, oilseeds, and cereals are also exported.

A narrow-gauge branch line connecting Baripādā town with Rupsā junction on the Bengal-Nāgpur Railway, a distance of 32 miles, was opened in 1905. The town is also connected by metalled roads with Bahalda and Karanjiā, the head-quarters of the outlying subdivisions, and with the towns of Balasore and Midnapore; and several fair-weather roads lead from it to other parts of the State.

The head-quarters are at BARIPĀDĀ TOWN, which contains the residence of the chief and the seat of the administration. There are two outlying subdivisions, Bāmanghāti and Pānchpīr, with head-quarters at BAHALDA and KARANJIĀ respectively.

The administration of the State is conducted on British lines under the personal supervision of the chief, who has been vested with higher

criminal powers than any of the other tributary chiefs, being empowered to pass sentences of imprisonment for five years. He is assisted by a Dīwān and three Assistant Dīwāns, and the judicial officers include a State Judge, a Subordinate Judge, and two Munsifs; of the latter the Subordinate Judge and one Munsif have the powers of a magistrate of the first class, while the other Munsif has second-class powers. The subdivisional officers are vested with limited revenue, criminal, and civil powers. The Educational department is controlled by a Superintendent, the Public Works department by a State Engineer, and the police and jails by a Superintendent; the 'reserved' forests are under the management of a Forest officer, while the protected forests are under the revenue authorities. The State has a revenue of $9\frac{1}{2}$ lakhs, the current land revenue demand being 7 lakhs; and the tribute payable to the British Government is Rs. 1,068.

The police force consists of 33 officers and 201 men, in charge of a European officer. A masonry jail has accommodation for 89 prisoners. Education has made rapid progress during the last twenty years, and in addition to a high school at Baripādā 284 schools of all kinds are scattered over the State. The State contains six dispensaries; the people are beginning to appreciate them, and the number of patients is gradually rising.

Mayūreswar.—Village in the Rāmpur Hāt subdivision of Bīrbhūm District, Bengal, situated in 23° 59′ N. and 87° 46′ E., on the road from Sūri to Murshidābād. Population (1901), 2,535. The inhabitants are principally engaged in rearing silkworms, and in silk-spinning and weaving.

Māzalgaon Tāluk.—North-eastern *tāluk* of Bhīr District, Hyderābād State, with an area of 775 square miles. The population in 1901, including *jāgīrs*, was 122,135, compared with 132,658 in 1891, the decrease being due to the famines of 1897 and 1899–1900. The *tāluk* contains one town, MĀZALGAON (population, 5,698), the head-quarters; and 223 villages, of which 51 are *jāgīr*. The land revenue in 1901 was 3 lakhs. The country is very fertile, being composed of black cotton soil. The Godāvari river flows through the northern portion.

Māzalgaon Town.—Head-quarters of the *tāluk* of the same name in Bhīr District, Hyderābād State, situated in 19° 9′ N. and 76° 13′ E., on the left bank of the Sindphana, a tributary of the Godāvari. Population (1901), 5,698. It is a rising town, the principal trade being in grain, while indigo was once largely dealt in.

Mazār-i-Sharīf.—Capital of the province of Afghān-Turkistān, situated in 36° 43′ N. and 67° 7′ E., 318 miles from Kābul; 1,235 feet above the sea. The place is held sacred as the alleged burial-place of Alī, the son-in-law and cousin of Muhammad; and a tomb consisting of two lofty cupolas was built to him by Sultān Alī Mirza in the first

half of the fifteenth century. As a matter of fact, Alī was not buried at Mazār, but at Najaf, in Turkey. In the early half of the last century Mazār was subject to Murād Beg of Kundūz. In 1852 it was taken by the governor of Balkh and has since remained in Afghān hands. The present prosperity of the town dates from the time of Muhammad Alam Khān, Amīr Sher Alī's governor. Since 1869 it has become the seat of government of Afghān-Turkistān and a not unimportant commercial centre. The old portion of the town is enclosed by a thin wall, now in ruins, and is mainly occupied by the tomb and a large straggling bazar. Around this the new town has grown rapidly, and buildings and gardens have sprung up on all sides in the neighbourhood. Mazār now resembles a mass of inhabited gardens and orchards rather than a regular town. The population of the town and suburbs is about 6,000 families, mainly Uzbegs, but including a few Hindu traders.

Medak District.—District in the Medak Gulshanābād Division of Hyderābād State, lying between 17° 25′ and 18° 19′ N. and 77° 48′ and 78° 31′ E., with a total area of 2,005 square miles, including 856 square miles of *jāgīr* and *paigāh* lands[1]. It is bounded on the north-east and north by Karīmnagar and Nizāmābād; on the east and south by the Atrāf-i-balda District; and on the west by Bīdar District and *paigāh* estates. There are numerous low hills. One range extends from Rāmāyampet in the north to the southern portion of Nizāmābād, and then turning to the south again enters the District. Another range extends from the north-western corner to the east. The fort of Medak stands on the summit of one of these hills to the west of the town.

Physical aspects.

The most important river is the Mānjra, which enters Medak from Bīdar, and passes through its western and north-western *tāluks*, its total length in the District being 60 miles. The Haldi or Paspaver, a tributary of the Mānjra, which enters the District from the north, flows under Medak town; its length is only 10 miles.

The rock formation is the Archaean gneiss.

The trees commonly found are teak, *bijāsāl* (*Pterocarpus Marsupium*), *nallāmaddi* (*Terminalia tomentosa*), *eppa* (*Hardwickia binata*), *mohwa* (*Bassia latifolia*), *nīm* (*Melia Azadirachta*), mango, tamarind, *tarvar* (*Cassia auriculata*), and various species of *Ficus*.

The District contains large tracts of woody and scrubby jungle, where *nīlgai*, spotted deer, *sāmbar*, and wild dogs are found. Partridge, quail, duck, teal, snipe, &c., abound everywhere.

The climate is very healthy from September to June; but during the rainy season malarial fevers and agues prevail, the *tāluks* of

[1] Except where otherwise stated, the statistics in this article relate to the District as it stood before the changes of 1905 referred to in the section on Population.

Rāmāyampet, Medak, and Bāghat being especially liable to these ailments, owing to the excessive humidity of the atmosphere. The temperature during the winter falls to 45°, while in May it rises to 100°. The annual rainfall averages 31 inches; but in 1899 the amount received was only 17½ inches, and in 1902 about 13 inches.

History.

This District formed part of the ancient kingdom of Warangal. In 1309 Alā-ud-dīn's general, Malik Kāfūr, marched with a large army against the Rājā of Warangal, and took Medak on his route. In the fourteenth century Medak formed part of the Bahmani kingdom, and subsequently passed to the Kutb Shāhi dynasty of Golconda. On the fall of Golconda, it was annexed to the Mughal empire, from which it was detached in the early part of the eighteenth century on the foundation of the Hyderābād State.

The District contains many places of archaeological interest. The fort of Medak stands about 300 feet above the surrounding plain. Patancherū, 16 miles north-west of Hyderābād, contains some old Hindu underground temples, where ancient coins have recently been discovered. Andol and Komatūr have old mosques of note; and Chatkūr, Kalabgur, Kandi, Nandi, Patancherū, and Venkatāpur, ancient Hindu temples. At Yedupailū, south-east of Medak, where seven tributaries of the Mānjra meet, a large religious fair is held annually.

Population.

There are 634 towns and villages in the District. The total population at each Census in the last twenty years was: (1881) 326,720, (1891) 364,735, and (1901) 366,722. The towns are MEDAK and LINGAMPET in the Medak *tāluk*, SIDDIPET[1], and SADĀSEOPET. SANGAREDDIPET is the District head-quarters. About 90 per cent. of the population are Hindus, and nearly all the rest Muhammadans. Telugu is the language chiefly spoken. The following table shows the distribution of population in 1901:—

Tāluk.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Medak	294	2	70	56,495	192	+ 4·4	Not available.
Rāmāyampet	273	...	79	55,485	203	+ 2·9	
Bāghāt	25	...	15	5,514	222	+ 125·3	
Kalabgūr	234	1	85	56,313	240	− 18.8	
Andol	212	...	77	48,849	230	+ 3·7	
Tekmāl	111	...	45	20,684	186	− 1·1	
Jāgīrs, &c.	856	...	260	123,352	144	+ 3·2	
District total	2,005	3	631	366,722	183	+ 0·5	9,360

[1] Siddipet was transferred to this District from Karīmnagar in 1905.

In 1905 Tekmāl was merged in Andol, and Rāmāyampet partly in Medak and partly in the Kāmāreddipet *tāluk* of Nizāmābād (Indūr) District. Ibrāhīmpatan was transferred from Mahbūbnagar District and added to Bāghāt, while Siddipet was transferred to this District from Karīmnagar (Elgandal). In its present form the District consists of five *tāluks*: Medak, Siddipet, Bāghāt, Kalabgūr, and Andol, besides the four large estates of Hatnūra, Narsāpur, Nārsingi, and Nawābpet, and other minor *jāgīrs*.

The most numerous caste is that of the Kāpus (69,000). Next come the Mādigas or leather-workers (40,300), and the Mālas or Dhers (32,400), both of whom work also as agricultural labourers. There are 37,400 Brāhmans, 32,300 Gollas or shepherds, and 13,600 Komatis, who form the trading and money-lending caste. Nearly 42 per cent. of the population depend directly upon agriculture, and 11 per cent. on general labour and earthwork.

The total number of Christians, according to the last Census, was 373, of whom 327 were natives. A Wesleyan mission at Medak town was started in 1887, and has a staff of 8 Europeans and 45 natives. The adherents are chiefly of the Māla caste. The mission maintains a school and a hospital. The former was opened in 1887 and the latter in 1895, a large *zanāna* ward being added in 1902.

Agriculture.

There is hardly any difference in the agricultural condition of the several *tāluks*. The soils on the highlands are mostly sandy and gravelly, while black soil is found in small patches in hollows or depressed areas.

The tenure of lands is chiefly *ryotwāri*. In 1901 the District contained 1,149 square miles of *khālsa* lands, of which 489 were cultivated. Of the remainder, 114 were cultivable waste and fallows, 387 were forests, and 159 were not available for cultivation. The staple food-crops are rice, *bājra*, and *jowār*, the areas under which were 106, 207, and 168 square miles respectively. The rice in this District compares favourably with the finest qualities produced elsewhere. Next in importance are *kodro*, *lachna*, and various pulses. Sugar-cane is grown in all the *tāluks*, covering about one square mile.

The cattle are of the ordinary kind, and buffaloes are extensively employed in rice and sugar-cane cultivation. No special breed of ponies or horses is indigenous to the District, those found being very inferior. At Rājampet, near Sangareddipet, there is a State stud farm, where several stallions are kept with the object of improving the breed, but ryots are slow in taking advantage of the facilities offered them in this respect. Sheep and goats of the ordinary description are reared.

The total area of irrigated land in 1900–1 was 109 square miles, or more than 22 per cent. of the cultivated area. The different sources of irrigation and the areas supplied by each are as follows: Canals and

channels, 17 square miles; tanks, 68; and wells, 24. Tank-irrigation is the mainstay of the District, which contains 351 large and 1,658 small tanks. The number of wells is 2,018; and the other sources of irrigation are small anicuts, called *mathris*, of which there are 74. The Malkāpur tank irrigates the lands of 12 villages. Generally two crops of rice are raised with tank and well irrigation. Water is raised from wells in leathern buckets. A large canal taking off from the Mānjra has been constructed at a cost of over 10 lakhs, which is estimated to irrigate 10,000 acres of land, and to yield a revenue of 2 lakhs. It was opened in 1904. Another project, called the Mānjra Extension, when completed will cost 6½ lakhs and irrigate 7,000 acres, securing a revenue of 2½ lakhs. The District has always been immune from famine, owing to the large number of tanks it contains.

Medak contains no protected forests, but there are 387 square miles of unprotected forest.

No minerals of any value are found. In the hills of Lingampet nodular ironstone is smelted, and the iron is largely employed in the local manufacture of agricultural implements.

Trade and communications.

There is no important hand industry in the District. Cotton cloth is printed with fast dyes for use as screens, tablecloths, floor-cloths, &c. Coarse cotton cloth and silk stuffs of superior quality are made, the latter after European patterns, and are largely used for coats, *sārīs*, &c. Brass vessels are made at Lingampet and Rāmāyampet. Sivanagar and Jogipet contain tanneries, whence leather is exported to Hyderābād, Bombay, and Madras. The Chamārs prepare leather for the manufacture of water buckets and sandals for the ryots. The Hyderābād Spinning and Weaving Mill is situated near Mushīrābād, in the Bāghāt *tāluk*, north of the city of Hyderābād.

The main exports are rice, both fine and coarse, unrefined sugar, jaggery, *jowār*, tobacco, *mahuā* oil, cotton, gram, other cereals and pulses, brass and copper vessels, cattle, and leather; while the chief imports are salt, opium, salted fish, gold and silver, copper, brass, sulphur, kerosene oil, refined sugar, silk and cotton piece-goods. Rice is sent to Hyderābād and other parts of the State, and leather to Madras and Bombay. Imported articles are brought to Sadāseopet from Shankarpalli, on the Nizām's Guaranteed State Railway; and from Mirzapalli, on the Hyderābād-Godāvari Valley Railway to Rāmāyampet, and thence distributed to Sangareddipet, Jogipet, Lingampet, Medak, &c., whence they find their way to distant parts through weekly bazars. Komatis, Mārwāris, and Baljawārs are the trading castes, and they also lend money.

The Nizām's Guaranteed State Railway enters Medak from the west at Gullaguda and passes out at Lingampalli in the east, a distance of

22 miles. The Hyderābād-Godāvari Valley Railway runs almost due north and south through Manoharābād, Māsaipet, and Mirzapalli on the eastern border of the District.

The total length of roads is 183 miles, of which 81 miles are metalled. The metalled roads are in three sections: Sadāseopet to Kūkatpalli, 32 miles; Shankarpalli to Sangareddipet, 14 miles; and part of the old Nāgpur road, 35 miles. Unmetalled roads lead to the remaining head-quarters of *tāluks*.

Administration.

This District, though a small one, has been divided into three sub-divisions. The Medak and Siddipet *tāluks* are under a Third Tālukdār, Andol under the Second Tālukdār of Andol, and Kalabgūr and Bāghāt under another Second Tālukdār. There is also another Third Tālukdār who acts as Assistant to the First Tālukdār, the First Tālukdār or Collector overlooking the revenue and magisterial work of his subordinates. Each *tāluk* is under a *tahsīldār*.

The District civil court at Sangareddipet is presided over by the *Nāzim-i-Dīwāni* or Civil Judge, who is also a Joint-Magistrate in the absence of the First Tālukdār from head-quarters. The First Tālukdār is the chief magistrate. The *tahsīldārs* exercise third-class civil and magisterial powers, and preside over *tāluk* civil courts. The Second and Third Tālukdārs exercise second-class magisterial powers. There is not much serious crime in ordinary years, but dacoities and cattle-thefts increase in number during the dry season when the roads are open.

Little information is available as to the revenue history of the District. Formerly groups of villages or *tāluks* were farmed out by the State to contractors, who received 10 per cent. for collection. This was followed by the *batai* or share system, under which the State received three-fifths of the produce of lands irrigated from tanks, and an equal share from lands supplied by wells. In 1866 the *ryotwāri* system was introduced, and revenue was collected in cash from individual ryots. Kalabgūr was regularly settled in 1892, Andol in 1898, Rāmāyampet and Medak in 1900, Tekmāl in 1901, and Bāghāt *tāluk* in 1905. Sugar-cane was charged Rs. 200 per acre under the old system, but now water rates are levied for 'wet crops' according to the class of land. Before the commencement of the survey, the records showed an area of 67,400 acres of 'wet' lands and 119,463 acres of 'dry.' The result of the survey was a decrease of 3 per cent. in the 'wet,' and an increase of 103 per cent. in the 'dry' lands, while the settlement raised the revenue by 2 lakhs or 16 per cent. in the five *tāluks* surveyed. The average assessment on 'dry' land is Rs. 2 (maximum Rs. 4, minimum R. 0-4), and on 'wet' land Rs. 13 (maximum Rs. 20 minimum Rs. 6). The rates given for 'wet' lands

are for the *ābi* (rainy season) crop, the *tābi* (hot season) crop rates being Rs. 35 maximum, Rs. 10 minimum, and Rs. 20 average.

The land revenue and the total revenue of the District for a series of years are shown below, in thousands of rupees :—

	1881.	1891.	1901.	1903.
Land revenue . .	8,50	8,40	12,12	8,97
Total revenue . .	11,45	14,13	17,75	13,63

Owing to the changes in area made in 1905, the revenue demand is now about 14·6 lakhs.

There is a municipality at SANGAREDDIPET, and each of the other *tāluk* head-quarters has a small conservancy establishment. The District board manages both the municipal and local affairs of the head-quarters, and also supervises the work of the outlying *tāluk* boards. The expenditure in 1900–1 was Rs. 12,600, of which Rs. 497 was laid out on roads. The income was, as usual, derived from a portion of the land cess, levied at one anna in the rupee on the land revenue assessments.

The First Tālukdār is the head of the District police, with the Superintendent (*Mohtamim*) as his executive deputy. The force consists of 67 subordinate officers, 499 constables, and 25 mounted police, under 6 inspectors and one sub-inspector, distributed among 32 police stations. There is a District jail at Sangareddipet, but only short-sentence prisoners are kept there, the rest being sent to the Central jail at Nizāmābād.

The District takes a medium position in point of literacy, 2·6 per cent. (4·6 males and 0·35 females) of the population being able to read and write in 1901. The total number of pupils under instruction in 1881, 1891, 1901, and 1903 was 774, 2,293, 1,907, and 2,044 respectively. In 1903 there were 25 primary schools and one middle school, with 159 girls under instruction. The total expenditure on education in 1901 was Rs. 13,100, and the fee receipts amounted to Rs. 731.

The District contains 4 dispensaries, with accommodation for 11 in-patients. The total number of cases treated at these during 1901 was 200 in-patients and 31,422 out-patients; and the number of operations performed was 920. The total expenditure amounted to Rs. 11,200. The number of persons successfully vaccinated in 1901 was 540, or only 1·47 per 1,000 of population.

Medak Tāluk.—*Tāluk* in Medak District, Hyderābād State, with an area of 359 square miles. Its population in 1901, including *jāgīrs*, was 65,852, compared with 63,066 in 1891. The *tāluk* contains two towns, MEDAK (population, 8,511), the head-quarters, and LINGAMPET (5,102); and 89 villages, of which 19 are *jāgīr*. The land revenue

in 1901 was 3·2 lakhs. The *tāluk* is somewhat hilly, and its soils are mostly sandy. Rice and sugar-cane are largely raised by tank-irrigation. The Hyderābād-Godāvari Valley Railway passes through the eastern portion. The *paigāh tāluks* of Narsāpur, Hatnūra, and Nawābpet lie to the south, with populations of 15,567, 14,183, and 6,179 respectively. The two former consist of 39 villages each, and the latter of 8 villages. Their respective areas are about 130, 128, and 26 square miles. The *jāgīr tāluk* of Nārsingi, with 11 villages and a population of 8,093, also lies to the south, and has an area of about 36 square miles. In 1905 some villages were added to the *tāluk* from Rāmāyampet, while others were transferred from it to Kāmāreddipet and Yellāreddipet in Nizāmābād.

Medak Town.—Head-quarters of the *tāluk* of the same name in Medak District, Hyderābād State, situated in 18° 3′ N. and 78° 26′ E. Population (1901), 8,511. The town is built on the northern and eastern sides of a high hill, which was at one time strongly fortified. The fortifications are said to have been built originally by a Warangal Rājā, but the present fort was constructed about the middle of the sixteenth century. It contains a brass gun 10 feet long, cast at Rotterdam for the Dutch in 1620. A Persian inscription on a slab in the *tāluk* office alludes to the building of a mosque in 1641, on the ruins of a demolished temple. A large mission school, with 180 pupils, and several mission buildings stand north-east of the town.

Medak Gulshanābād Division.—Division of the Hyderābād State, formed in 1905 from the old Bidar Division. It includes four Districts, as shown below:—

District.	Area in square miles.	Population, 1901.	Land revenue and cesses, in thousands of rupees.
Nizāmābād (Indūr)	3,282	467,367	16,11
Medak . . .	3,447	536,027	15,52
Mahbūbnagar .	5,842	613,771	8,86
Nalgonda . .	4,913	823,121	15,53
Total	17,484	2,440,286	56,02

The density of population is 1,396 persons per square mile; and the Division contains 11 towns and 2,747 villages. The chief places of commercial importance are the towns of Nizāmābād, Medak, Sadāseopet, Siddipet, Mahbūbnagar, Nārāyanpet, Nalgonda, and Bhongīr. Medak, Nalgonda, and Bhongīr are also places of historic interest. The head-quarters of the Sūbahdār or Commissioner are at Patancherū.

Medchal.—Crown *tāluk* in the north-east of the Atrāf-i-balda District, Hyderābād State, also called the *Shimāli* or 'northern' *tāluk*, with an area of 634 square miles. The population in 1901, including

jāgīrs, was 80,520, compared with 91,113 in 1891. The *tāluk* contains 167 villages, of which 106 are *jāgīr*; and Medchal (population, 3,019) is the head-quarters. The land revenue in 1901 was one lakh. Medchal is well supplied with tanks from which much rice is irrigated. The *jāgīr tāluk* of Alīābād, with a population of 3,201, 2 villages, and an area of about 8 square miles, lies to the east of Medchal.

Medinipur.—District, subdivision, town, and canal in Bengal. *See* MIDNAPORE.

Meeanee (1).—Village in the District and *tāluka* of Hyderābād, Sind, Bombay. *See* MIĀNI (2).

Meeanee (2).—Town in the Dasūya *tahsīl* of Hoshiārpur District, Punjab. *See* MIĀNI (3).

Meeanee (3).—Town in Shāhpur District, Punjab. *See* MIĀNI (4).

Meean Meer.—Former name of LAHORE CANTONMENT, Punjab.

Meerut Division.—Division on the north-western border of the United Provinces, extending from the outer ranges of the Himālayas across the valley of the Dūn and its southern boundary, the Siwālik range, to the middle of the Doāb. It lies between 27° 29′ and 31° 2′ N. and 77° 2′ and 78° 38′ E., and is bounded throughout by the Jumna on the west and the Ganges on the east. The head-quarters of the Commissioner are at MEERUT CITY. The total population of the Division increased from 5,141,204 in 1881 to 5,326,833 in 1891, and 5,979,711 in 1901, the increase during the last decade having been greater than in any other Division of the Provinces. The total area is 11,302 square miles; and the density of population is 529 persons per square mile, compared with 445 for the Provinces as a whole. The Division is the fifth largest in area and the third in population. In 1901 Hindus numbered 75 per cent. of the total and Musalmāns 23 per cent.; other religions include Jains (37,941), Aryas (33,718), Christians (29,294, of whom 22,864 were natives), and Sikhs (4,148). The Division contains six Districts, as shown below:—

District.	Area in square miles.	Population, 1901.	Land revenue and cesses, 1903-4, in thousands of rupees.
Dehra Dūn	1,209	178,195	1,09
Sahāranpur	2,228	1,045,230	17,76
Muzaffarnagar	1,666	877,188	17,57
Meerut	2,354	1,540,175	32,61
Bulandshahr	1,899	1,138,101	23,31
Alīgarh	1,946	1,200,822	27,97
Total	11,302	5,979,711	1,20,31

Dehra Dūn lies chiefly between the Siwāliks and the Himālayas, stretching up into both ranges; Sahāranpur reaches the Siwāliks, but

lies chiefly in the great plain; and the other Districts are entirely separated from the hills. The Division contains 112 towns and 7,713 villages. The largest towns are MEERUT (population, 118,129 with cantonments), ALĪGARH (70,434), SAHĀRANPUR (66,254), HĀTHRAS (42,578), KHURJA (29,277), DEHRA (28,095 with cantonments), HARDWĀR (25,597), MUZAFFARNAGAR (23,444), and DEOBAND (20,167).

The chief places of commercial importance are Meerut, Sahāranpur, Alīgarh (Koil), Hāthras, Khurja, and Muzaffarnagar; but many other smaller towns are important centres of the grain trade. HARDWĀR and GARHMUKTESAR are famous for their religious associations. Hastināpur, now a tiny hamlet, is reputed to have been the capital of the Pāndava kingdom. At KĀLSĪ there is a rock inscription of Asoka; Baran or BULANDSHAHR, ALĪGARH or Koil, and SARDHANA have special associations, referred to in the articles on those places, while Meerut city was the place where the great Mutiny first broke out in Northern India in May, 1857.

Meerut District (*Merath*).—District in the United Provinces, lying between 28° 33′ and 29° 18′ N. and 77° 7′ and 78° 12′ E., with an area of 2,354 square miles. It is bounded on the north by Muzaffarnagar District and on the south by Bulandshahr, while the Ganges divides it on the east from Morādābād and Bijnor, and the Jumna on the west from the Punjab Districts of Karnāl and Delhi. On the banks of these great rivers are stretches of inferior low-lying *khādar* land. The rest of the District is, for the most part, a level upland, the edges of which are scored by ravines. This may be divided into three main tracts. The western division, stretching almost to the Upper Ganges Canal, has an extraordinarily rich and uniform soil, except immediately above the rivers Jumna and Hindan. East of this lies a shallow depression with poor natural drainage. The third tract, extending to the high banks of the Ganges, is characterized by the presence of sandy dunes, which are scattered in various directions in the eastern portion, but form a well-defined ridge in the west.

Physical aspects.

Besides the Jumna and the Ganges, the most important river is the Hindan, which runs through the west of the District and has a considerable area of *khādar* land. Two small streams called Chhoiyā, and a cut called the Abū Nālā, carry off part of the drainage of the central depression and the eastern tract into the ill-defined bed of the East Kālī Nadī. In the extreme east of the District the Būrhgangā, or 'Old Ganges,' forms a chain of swamps close below the old high bank.

Meerut is situated entirely in the Ganges alluvium, and *kankar* and saline efflorescences are the only minerals.

The botany of the District presents no peculiarities. There is very little natural jungle, and grazing land is chiefly found in the Ganges

and Jumna *khādars*, and to a less extent along the Hindan. The District is, however, well wooded, and groves cover 21 square miles. The commonest tree is the mango; but the *bel* and guava are largely grown for fruit, and the *shīsham* is planted in the road and canal avenues.

Leopards are fairly common in the Ganges *khādar* and ravines, but tigers are extremely rare. Antelope are numerous in most parts of the District; Meerut is famous for wild hog, and the pig-sticking competition held annually for the Kādir (*khādar*) Cup in March or April is well-known. Other animals found include the wolf, fox, jackal, hog deer, and *nīlgai*. Game-birds are numerous. Duck and teal are found along the Būrhgangā and other rivers, and in the larger swamps in the interior. Snipe, geese, black and grey partridges, quail, pigeons, and sand-grouse are also common.

The comparatively high latitude and elevated position of Meerut make it one of the healthiest Districts in the plains of India. From November to March the weather is cool and invigorating, hoar-frost being frequently found in January at an early hour of the day. The hot westerly winds begin in April, and the rains set in about the end of June. The mean temperature is about 77°, ranging from 57° in January to 91° in May or June.

The District is practically the meeting-place of the Bengal and Bombay monsoon currents. The annual rainfall for thirty years has averaged 29 inches; but it varies in different parts, and the south-west of the District receives less than the north-east. Considerable fluctuations occur; during the five years ending 1895 the rainfall averaged as high as 47 inches, while it sometimes falls below 20 inches.

History.

The District is connected with the earliest traditions of the Lunar race of the Hindus. A small hamlet on the high bank of the Ganges is believed to mark the main site of Hastināpur, the capital of the Kauravas and Pāndavas, which was washed away by the Ganges. The Asoka pillar, now standing on the Ridge at DELHI, is said to have been removed from near Meerut city, and remains of Buddhist buildings have been discovered near the Jāma Masjid. In the eleventh century A.D. the south-western part of the District was held by Har Dat, the Dor Rājā of Baran or BULANDSHAHR, who was defeated by Mahmūd of Ghazni in 1018. According to tradition, the north of the District was held by the Tagās, who were driven south and east by the Jāts. The Meos were called in by the Gahlots and expelled the Dors. The first undoubted Muhammadan invasion was that of Kutb-ud-dīn, the general of Muhammad Ghori, in 1192, when the city of Meerut was taken and all the Hindu temples were converted into mosques. Under succeeding Sultāns we hear little of the District, which may therefore be considered to have escaped

any notable misfortune, until the Mongol invasion of 1398. Tīmūr swooped down upon Meerut with more than ordinary barbarity, and was met with equal Hindu obstinacy. At the fort of Lonī, many of the Rājputs burned their houses, with their women and children within, and then sallied out to sell their lives as dearly as they could. After the capture, Tīmūr ordered the massacre of all the Hindu prisoners in his camp, whom he himself represents as numbering 100,000 persons. He then went on to the sack of Delhi, and returned to the town of Meerut, then ruled by an Afghān chief named Iliās. Tīmūr first made his approaches by mining, and on the second day carried the walls by storm. All the males were put to the sword, and the fortifications and houses of the Hindus razed to the ground. Thence his army proceeded northward along the two great rivers, taking every fort, town, and village they passed.

The firm establishment of the Mughal dynasty in the sixteenth century, and the immediate neighbourhood of their court, gave Meerut a period of internal tranquillity and royal favour. The valley of the Jumna became a favourite hunting resort for the imperial family and their great officers. Pleasure-gardens and game-preserves were established in the low-lying tracts just opposite Delhi; while it was for the purpose of watering one of these that the Eastern Jumna Canal was first designed. After the death of Aurangzeb, Meerut, though nominally subject to the Delhi emperor, was really ruled by local chieftains: the Saiyids of Muzaffarnagar in the north, the Jāts in the south-east, and the Gūjars along the Ganges and in the south-west. It was also exposed to the same horrors of alternate Sikh and Marāthā invasions which devastated the other parts of the Upper Doāb; while the Jāts and Rohillas occasionally interposed, to glean the remnant of the plunder which remained from the greater and more fortunate hordes.

From 1707 till 1775, Meerut was the scene of perpetual strife; and it was only rescued from anarchy by the exertions of a European military adventurer, Walter Reinhardt or Sombre, one of the many soldiers of fortune who were tempted to try their destinies in Upper India during the troubled decline of the Delhi dynasty. After perpetrating the massacre at PATNA, 1763, Reinhardt established himself at SARDHANA in one of the northern *parganas* of Meerut; and on his death in 1778 left his domains to his widow, generally known as the Begam Sumrū, from the assumed name of her husband. This remarkable woman was of Arab descent, and originally followed the trade of a dancing-girl. After her marriage with Reinhardt, she was baptized into the Roman Catholic Church, to which she became a considerable benefactress. Meanwhile, the southern portion of the District still remained in its anarchic condition under Marāthā rule, until the fall of Delhi in 1803, when all the country in the possession of Sindhia

between the Jumna and the Ganges was ceded to the British. The Begam, who had up till that time given assistance to Sindhia, thereupon made submission to the new Government, to which she remained constantly faithful till her death in 1836.

Meerut has few historical incidents to show during the early British period; but it has been rendered memorable by the active part which it took in the Mutiny of 1857, being the place where the first outbreak occurred in Upper India. From the beginning of the year disquieting rumours had been afloat among the native troops, and the 'greased-cartridge' story had spread widely through their ranks. In April a trooper named Brijmohan informed his comrades that he had used the new cartridges, and all would have to do so shortly; but within a few days Brijmohan's house was set on fire, and from that time acts of incendiarism became common. On May 9 some men of the 3rd Bengal Cavalry, who had refused to use the cartridges, were condemned to ten years' imprisonment. Next day, Sunday, May 10, their comrades took the fatal determination to mutiny; and at 5 p.m. the massacre of Europeans in the city began.

The subsequent events belong rather to imperial than to local history, and could not be adequately summed up in a brief *résumé*. It must suffice to say that, throughout the Mutiny, the cantonments remained in the hands of the British forces, and the District was on the whole kept fairly clear of rebels. Meerut was more than once threatened by Walīdād Khān, the rebellious chieftain of Mālāgarh in Bulandshahr District; but his demonstrations were never very serious. The greatest peril lay in the threatened attack by rebels from Rohilkhand, which was successfully warded off. Indeed, it is a noticeable fact that the very city where the Mutiny broke out, and where the first massacre took place, was yet held by a small body of Europeans, surrounded by thousands of disaffected natives, under the very shadow of Delhi, from the beginning to the end of that desperate struggle.

Though many places are connected by tradition with the events related in the Mahābhārata, such as Hastināpur, BĀGHPAT, GARHMUKTESAR, PARĪCHHATGARH, Pūth, and Barnāwā, very ancient temples or other archaeological remains have not been discovered. A mosque built by Balban stands at Garhmuktesar, and there are a few Muhammadan buildings dating from the Mughal dynasty at MEERUT CITY.

Population. The District contains 27 towns and 1,494 villages. The population is rising steadily. The number at the last four enumerations was as follows: (1872) 1,276,167, (1881) 1,313,137, (1891) 1,391,458, and (1901) 1,540,175. The increase in the last decade (10·6 per cent.) was six times as great as the Provincial average. There are six *tahsīls*—MEERUT, GHĀZIĀBĀD, MAWĀNĀ, BĀGHPAT, SARDHANA, and HĀPUR—the head-quarters of each being

at a town of the same name. The chief towns are the municipalities of MEERUT, the District head-quarters, HĀPUR, SARDHANA, GHĀZIĀBĀD, and MAWĀNĀ, and the 'notified areas' of BARAUT, BĀGHPAT, PILKHUĀ, and SHĀHDARĀ. The principal statistics of population in 1901 are shown below:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Meerut . .	364	5	280	342,143	940	+ 4.9	18,048
Ghāziābād .	493	9	332	276,518	562	+ 11.9	7,122
Mawānā . .	431	4	248	200,399	465	+ 12.7	3,398
Bāghpat . .	405	6	218	297,506	735	+ 14.4	7,285
Sardhana . .	250	1	124	180,141	721	+ 6.8	5,198
Hāpur . .	411	2	292	243,468	592	+ 14.8	6,910
District total	2,354	27	1,494	1,540,175	654	+ 10.7	47,961

Of the total population, 74 per cent. are Hindus, 23 per cent. Musalmāns, 1 per cent. Jains, 8 per cent. Christians, while Aryas number 5,000. The great density in the Meerut *tahsīl* is due to the large city of Meerut, while Mawānā, which has the lowest density, includes a considerable area of Ganges *khādar*. More than 99 per cent. of the inhabitants speak the Hindustāni dialect of Western Hindī.

Among Hindus the most numerous caste is that of the Chamārs (leather-dressers and labourers), who number 223,000, and form 20 per cent. of the Hindu population. They are followed by the Jāts, 184,000, who are the most industrious agriculturists and hold a larger area both as proprietors and cultivators than any other caste. Brāhmans number 121,000; Rājputs, 79,000; Baniās, 59,000; Gūjars, 58,000; Tagās, 41,000; Ahīrs, 25,000; and Bhangīs or sweepers, 44,000. The Jāts, Gūjars, and Tagās are not found in the centre and east of the Provinces, and the Tagās (agriculturists) are more numerous here than in any other District. The most numerous Muhammadan tribe is that of the Shaikhs, 50,000; followed by Rājputs, 46,000; Julāhās (weavers), 33,000; Pathāns, 19,000; Saiyids, 15,000; and Tagās, 20,000. More than 49 per cent. of the population are supported by agriculture, 11 per cent. by general labour, 10 per cent. by personal services, 3 per cent. by weaving, and nearly 3 per cent. by grain-dealing.

In 1901 there were 9,315 native Christians in the District, of whom 7,400 were Methodists and 1,100 Roman Catholics. The four missions at work are the Roman Catholic, the Church Missionary Society, the American Methodist, and the Reformed Presbyterian Churches. Sardhana is the chief station of the Roman Catholics, who commenced

work there at the end of the eighteenth century under the Begam Sumrū. The Church Missionary Society's Mission dates from 1815, and the other two missions are of recent institution. The latter admit converts easily, and chiefly labour among the lower classes.

Agriculture.

As is usual in the Upper Doāb, the Jāts are the best cultivators, and all good land is manured whether near the village site or not. The soil varies from sand to thick clay; but the greater portion is a fertile loam, and most of the District is capable of irrigation from canals or wells. The Ganges and Jumna and, to a smaller extent, the Hindan *khādars* are precarious tracts; but the District as a whole ranks as one of the finest in the United Provinces.

The tenures are those common in the United Provinces. More than 50 per cent. of the total area is held in *bhaiyāchārā* tenure; nearly 22 per cent. in imperfect *pattīdāri*; and the rest in perfect *pattīdāri* and *zamīndāri* in equal proportions. The main statistics of cultivation for 1903-4 are shown below, in square miles:—

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Meerut	364	277	122	29
Ghāziābād	493	349	180	69
Mawāna	431	273	89	94
Bāghpat	405	336	190	22
Sardhana	250	201	82	18
Hāpur	411	320	112	34
Total	2,354	1,756	775	266

Wheat and gram are the most important food-grains, covering an area of 634 and 241 square miles respectively, or 36 and 14 per cent. of the net area cropped. Maize and *jowār*, with 189 and 164 square miles, are also important. The most valuable of the other crops are sugar-cane (179 square miles) and cotton (60 square miles).

In the *khādar*, cultivation depends chiefly on the season, and in dry years considerable areas may be sown. The striking feature of the District during the last thirty years is the increase by about 50 per cent. in the area under sugar-cane, which is now the crop from which the tenants pay their rent and the *zamīndārs* their revenue. The area cropped in two consecutive harvests in the same year, especially with maize in the autumn and wheat mixed with peas, &c., in the spring, is also increasing. The area under cotton has declined, and indigo is grown only by a few of the large *zamīndārs*. There is a small, but steady, demand for loans under the Agriculturists' Loans Act, amounting to about Rs. 2,000 annually; but advances under the Land Improvement Loans Act are rarely taken. Out of Rs. 16,000 lent during

the ten years ending 1900, Rs. 11,000 was advanced in the last year. A great deal has been done to improve the drainage of the District, by deepening and straightening some of the rivers, such as the East Kālī Nadī and its tributaries, the two Chhoiyās, and by making cuts in other places. In the south-west of the District an embankment has been made to prevent flooding from the Jumna.

Private enterprise has done something to improve the ordinary inferior breed of cattle, and several *zamīndārs* have imported good bulls from Hissār. The best of the cattle have been imported from the same place, but many good animals are now bred locally. Horse-breeding has become an important business. Stables for a Government stud were established at Bābūgarh near Hāpur in 1823, and many *zamīndārs* turned their attention to horse-breeding. The mares were subsequently disposed of, though stallions are still kept by Government. There has been a considerable improvement in the last thirty years, and chargers are bred for the native cavalry and mounted police. Besides the stallions at Bābūgarh, twelve others were maintained by Government in 1903, when the supervision of horse-breeding was transferred from the Civil Veterinary to the Remount department. Good mules are also bred from Government donkey stallions. The sheep and goats of the District are of the ordinary inferior breed.

About 40 to 60 per cent. of the cultivated area is irrigated according to the season. In 1903–4 canals irrigated 494 square miles, wells 271, and other sources 10. The west of the District is supplied by the EASTERN JUMNA CANAL, the centre by the UPPER GANGES CANAL, and the east by the Anūpshahr branch of the latter. Canals have to a large extent superseded wells; and the area irrigated in the eastern tract has benefited especially, as well-irrigation was rare. It is only in parts of the Sardhana and Hāpur *tahsīls* that well-irrigation supplies a larger area than canals.

The chief mineral product is *kankar*, which occurs in blocks as well as in nodules, and is used for road-metalling and for making lime, as well as for building purposes. Up to 1833 salt was largely manufactured, and a little saltpetre is still prepared. The saline efflorescence called *reh*, which contains carbonate of soda, is used for making country glass, and also in dyeing and washing clothes.

Trade and communications.

The most important industry is tanning, though there is no large tannery. Much of the out-turn is exported to Cawnpore and Calcutta, but a fair amount is made up on the spot into shoes and sent to Delhi. Cotton-weaving is carried on largely at Meerut and several other places, but only for the local market. More than half the raw cotton grown is exported to Cawnpore and Calcutta. Two cotton-presses at Hāpur employed 263 persons in 1904. A European company for soap manufacture

at Meerut employs about 40 hands, and an ice factory about 20. There are also eleven indigo factories, and a small flour-mill and oil-mill. Blankets are made at Nirpura in the Sardhana *tahsīl*, ornamental pottery at Bahādurgarh in the Hāpur *tahsīl*, and cheap cutlery, glass bangles, jewellery, and furniture are turned out at a few centres.

The exports consist chiefly of wheat, sugar, oilseeds, and cotton, while the imports are metals, cotton cloth, building materials, *ghī*, drugs, and spices. The municipalities are the chief centres of trade, especially Meerut, Hāpur, and Ghāziābād. Internal traffic is very large. The sugar goes largely to the Punjab and Rājputāna, while wheat is exported to Europe. A large proportion of the trade finds its way to Delhi. Timber and bamboos are brought to Meerut from the forests farther north by the Upper Ganges Canal and the Ganges.

Trade has been greatly fostered by the improvement of communications. The oldest railway is the East Indian, which just cuts across the south-west corner of the District. It was followed by the North-Western, which passes through the middle. In 1900 a branch of the Oudh and Rohilkhand Railway was opened, which traverses the southern part. Another important branch of the same line connects Meerut city with Hāpur, and will be continued through Bulandshahr to Khurja. The rich tract between the North-Western Railway and the Jumna is to be opened up by a light railway from Shāhdara on the East Indian Railway opposite Delhi to Sahāranpur.

The total length of metalled roads is 216 miles, which is only exceeded in one District in the Provinces; of these, 92 miles are Provincial and the rest local. There are also 392 miles of unmetalled roads, maintained from Local funds. There are avenues of trees along about 180 miles. The western part of the District is most in need of better communications, which will be supplied by the light railway referred to above.

Famine.

The Upper Doāb was ravaged by famine at frequent intervals before British rule, and the disorders of the eighteenth century frequently caused distress; but Meerut is not specially mentioned by the native historians. There was frequent distress in the early years of the nineteenth century, and the famine of 1837 was exceptionally severe. In 1860, after the disastrous effects of the Mutiny, famine was imminent; but the railway works in the south-east of the District gave employment to thousands. The famines of 1868 and later years hardly affected the District adversely, and relief works have chiefly been required for starving immigrants. This result is largely due to the extensive system of canal-irrigation and the sturdy nature of the peasantry. In 1896–7, when famine raged elsewhere, the Jāts of Meerut prayed openly for a continuance of the high prices which gave them such handsome profits.

The Collector is usually assisted by a Joint and Assistant Magistrate belonging to the Indian Civil Service, and by five Deputy-Collectors recruited in India, all residing at Meerut. There is a *tahsīldār* at the head-quarters of each of the six *tahsīls*.

Administration.

The District and Sessions Judge has jurisdiction over the whole District, and also civil jurisdiction over the Sikandarābād *tahsīl* of Bulandshahr District. He is aided by an Assistant Judge, a Subordinate Judge, and two Munsifs. In 1904 there were two additional Munsifs, and an additional Judge was sanctioned for three years. A few Village Munsifs have also been appointed. There is a special Cantonment Magistrate, with an assistant, at Meerut. As usual, the most common forms of crime are burglary and petty theft; but murder, robbery, and dacoity are more frequent than in most Districts. Cases of rioting and criminal trespass are very common, and the Gūjars in the Ganges and Jumna *khādars* are notorious cattle thieves. Female infanticide was practised by Gūjars and Jāts, especially the former, but has nearly died out.

The area comprised in the District was acquired in 1803, and was at first administered as part of Sahāranpur, of which it eventually formed the southern division with a Collector at Meerut. In 1818 a separate District was made, which was further subdivided in 1824 by the removal of parts of what are now Bulandshahr and Muzaffarnagar. The early land revenue settlements were simply based on the previous demands, and consisted of two for a year each and two for three years each, the last being extended up to 1815, when a settlement was effected for five years. No records exist of the subsequent arrangements till the first regular settlement was made between 1835 and 1837. There were signs of the coming competition for land, but rents were still mostly in kind. The assessment was based on rates ascertained by converting average produce at market values, the rates being modified according to the condition of villages. A large part of the District had formed the *jāgīr* of the Begam Sumrū, which lapsed in 1836. Her system had been one of rackrent, qualified by an intimate knowledge of the cultivators and liberal advances. The total demand fixed for the whole District was 18·3 lakhs. The second settlement was made between 1865 and 1870, when the demand was raised to 21·8 lakhs, though the share of the rental 'assets' taken had been reduced from 70 to 50 per cent. In this settlement, also, rates were calculated on produce, having regard to soil classification. The last settlement was completed in 1901. It was based on the rental 'assets,' but involved a careful soil classification and the fixing of standard circle rates, which were of special importance, as nearly half of the area was not subject to cash rents, most of it being under proprietary

cultivation. A very minute analysis of the rents actually paid was thus required, and the proportionate rental value of different soils was ascertained. The rents paid by occupancy tenants were enhanced in many cases, and the revenue finally fixed was 29·9 lakhs, representing 48 per cent. of the corrected rental 'assets.' The incidence per acre of cultivation is Rs. 2-14, being the highest for any District in the Provinces. It varies in different parts from Rs. 2 near the Ganges *khādar* to more than Rs. 4 in the west.

The collections on account of land revenue and total revenue are shown below, in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue .	22,25	22,11	26,30	27,95
Total revenue .	27,04	34,00	40,57	44,21

Besides the five municipalities, MEERUT, GHAZIĀBĀD, HĀPUR, SARDHANA, and MAWĀNĀ, four other towns which were formerly municipalities became 'notified areas' in April, 1904. There are also eighteen towns administered under Act XX of 1856. Beyond the limits of these places, local affairs are managed by the District board, which has an income of more than 2 lakhs. In 1903-4 the expenditure amounted to 2·6 lakhs, of which 1·1 lakhs was spent on roads and buildings.

The District Superintendent of police is aided by an assistant and six inspectors. There are 160 other officers and 633 men belonging to the regular police, 439 municipal and town police, and 2,267 village and road police. The District jail contained a daily average of 574 prisoners in 1903.

In 1901 the percentage of the population able to read and write was 3·1 (5·6 males and 0·3 females), which is exactly the Provincial average. The proportion is, however, unduly raised by the considerable number of Jains, Aryas, and Christians in the District, and is distinctly lower in the case of Hindus (2·7) and Muhammadans (2). In 1880-1 there were 214 public institutions with 6,677 pupils, and these had increased to 248 institutions with 9,849 pupils in 1900-1. In 1903-4, 277 such schools contained 12,850 pupils, of whom 550 were girls; and there were besides 391 private institutions with 5,235 pupils. MEERUT CITY contains an Arts college, a normal school, and three high schools. Of the public institutions, 162 are managed by the District or municipal boards and only 2 by Government. About half the total expenditure on education of Rs. 96,000 is met from Local and municipal funds, and a quarter from fees.

In 1903 there were 14 hospitals and dispensaries, with accommodation for 183 in-patients. In the same year 134,000 cases were treated,

of whom 1,839 were in-patients, and 10,214 operations were performed. The expenditure was Rs. 19,000, chiefly met from Local and municipal funds.

More than 50,000 persons were successfully vaccinated in 1903-4, showing a rate of 33 per 1,000 of population. Vaccination is compulsory only in the municipalities and in the cantonment of Meerut.

[H. R. Nevill, *District Gazetteer* (1904); R. W. Gillan, *Settlement Report* (1901).]

Meerut Tahsīl.—Central northern *tahsīl* of Meerut District, United Provinces, co-extensive with the *pargana* of Meerut, and lying between 28° 52′ and 29° 14′ N. and 77° 27′ and 77° 52′ E., with an area of 364 square miles. On the west the Hindan divides it from Bāghpat and part of the Sardhana *tahsīl*, but other boundaries are artificial. The population rose from 326,054 in 1891 to 342,143 in 1901. There are 280 villages and five towns, of which MEERUT (population, 118,129), the District and *tahsīl* head-quarters, and LĀWAR (5,046) are the most important. In 1903-4 the demand for land revenue was Rs. 5,22,000, and for cesses Rs. 87,000. The *tahsīl* has the highest density of population (940 persons per square mile) in the District (average 654), owing to the inclusion of Meerut city. Along the Hindan there is a narrow stretch of *khādar* which is liable to deterioration, but more than half the *tahsīl* is a level upland of first-class soil. The eastern portion is intersected by the East Kālī Nadī and its tributaries the two Chhoiyās and the Abū Nālā, which flow in badly-defined channels. The channel of the Kālī Nadī has been deepened and straightened, and other cuts have been made; but the drainage is still defective, and in this tract cultivation is continually interrupted by patches of *reh*. It is sandy towards the north, and a well-defined sandy ridge strikes from north to south on the eastern border. Between the Hindan and the Kālī Nadī the Upper Ganges Canal provides ample means of irrigation; but east of the Kālī Nadī the villages depend chiefly on wells, most of which are of masonry. In 1903-4 the area under cultivation was 277 square miles, of which 122 were irrigated.

Meerut City.—Administrative head-quarters of Meerut District, United Provinces, and military cantonment, situated in 29° 1′ N. and 77° 43′ E., 970 miles by rail from Calcutta and 931 miles by rail from Bombay. The city is the seventh largest in the United Provinces, and its population has risen considerably during the last thirty years. The numbers at the four enumerations were as follows: (1872) 81,386, (1881) 99,565, (1891) 119,390, and (1901) 118,129. The population in 1901 included 62,700 Hindus, 50,317 Muhammadans, and more than 4,000 Christians. Of the total, 78,740 persons reside in the municipality and 39,389 in cantonments.

The derivation of the name is uncertain. According to one account

it is derived from an architect named Mahī, in the time of King Yudhishthira. The Jāts allege that it was founded by a colony of their caste belonging to the Mahārāshtra *gotra*. The Asoka pillar now standing on the Ridge at Delhi was removed from Meerut, and remains of Buddhist buildings have been found near the Jāma Masjid. Meerut is said to have been captured early in the eleventh century by Saiyid Sālār Masūd; and about the same time Har Dat, Rājā of Baran (BULANDSHAHR), built a fort here, which was one of the most celebrated in Hindustān for its strength. The fort was captured by Kutb-ud-dīn in 1192, and all the Hindu temples were converted into mosques. In 1327 a Mongol chief, Tarmshirīn Khān, made an unsuccessful attempt on the city, but it was completely sacked and destroyed by Tīmūr in 1399. Under Mughal rule the place revived and several fine buildings were erected. The brick fort is mentioned in the *Ain-i-Akbarī*, and Akbar struck copper coin at Meerut. The troubled times of the eighteenth century were unfavourable to the growth of towns in the Upper Doāb, and in 1805 Meerut was described as 'a ruinous, depopulated town, and a place of no trade.' In 1806 cantonments were first established, and population grew rapidly to 29,014 in 1847 and 82,035 in 1853. Meerut obtained an unenviable notoriety in 1857 as the spot where the Mutiny broke out in Upper India. Disquieting rumours had been abroad for some time, and in April the troopers of the 3rd Cavalry refused to use the new cartridges. On May 9, eighty-five men were condemned to long terms of imprisonment; and the next afternoon, Sunday, May 10, a cry was raised that the Europeans were going to seize the magazines of the native infantry. The men of the 20th Native Infantry took up arms, and the Mutiny commenced. Several Europeans were shot down at once, and the bad characters of the city gathered together, armed with any weapons they could find. The convicted troopers were released from jail without the slightest opposition by the guards, and the rest of the prisoners broke out. The infuriated mob of sepoys, police, hangers-on about the bazars, servants, and convicts burned and plundered the cantonments, murdering every Christian they met. In the civil station, which lies some distance away, nothing was known of the outbreak until close on 7 p.m., when the people going to church saw the blaze of burning bungalows. Even the native troops posted there remained steady till relieved. The British troops cantoned near the civil lines included a regiment of cavalry, 800 infantry, and a large force of artillery; but nothing was done by the superior military authorities, and the general organization was defective. Many of the Carabineers could not ride, and there was a want of horses. Much time was wasted in a roll-call, and when the sepoys' lines were reached after dark, they were found deserted. No pursuit was attempted, and

the mutineers were allowed to reach Delhi in safety. The city was, however, held throughout the disturbances, and was the base of a small volunteer force known as the Khākī Risālā, which helped materially in the restoration of order.

The native city lies south of the cantonments and east of the railway line. The streets are generally of mean appearance, and are badly arranged. The oldest monuments are a mausoleum and *dargāh* erected by Kutb-ud-dīn in 1194, the former in the city, and the latter about a mile away on the site of a famous temple to Nauchandī Debī. The Jāma Masjid is said to have been built in 1019 by Hasan Mahdī, Wazīr of Mahmūd of Ghazni, and was repaired by Humāyūn. A fine *dargāh* of red sandstone was erected by Nūr Jahān, wife of the emperor Jahāngīr, in 1628, in memory of a *fakīr* named Shāh Pīr; and there are some other seventeenth-century mosques and tombs. The great tank called the Sūraj Kund, or 'sun tank,' constructed in 1714, is surrounded by numerous small temples and *sati* pillars.

The town hall, containing the Lyall Library, is an imposing building, the foundation-stone of which was laid in 1884 by the Duke of Connaught, then commanding the Meerut military district. In the cantonments the finest building is the church, which was built in 1821, and has a handsome spire. There are also a Roman Catholic church and a mission chapel, an asylum for the relief of distressed European and native Christians, and a club. The Mall is one of the finest station roads in India. Besides being the head-quarters of the ordinary District staff, Meerut is the residence of the Commissioner of the Division of the same name, Superintending Engineers of both the Roads and Buildings and Irrigation branches of the Public Works department, and two Executive Engineers in charge of divisions of the Upper Ganges Canal. The Church Missionary Society and the American Methodists have their principal stations here, besides several branches in the District.

Meerut was constituted a municipality in 1864. During the ten years ending 1901 the income and expenditure averaged about 2·3 lakhs; but the receipts include a loan of $7\frac{1}{2}$ lakhs for water-supply in 1895, and the expenditure includes the cost of the works and an annual sum on account of capital and interest. In 1903-4 the total income was 2·2 lakhs, chiefly derived from octroi (1·4 lakhs) and municipal property, fines, &c. (Rs. 41,000). The expenditure of 2·5 lakhs included: general administration (Rs. 2,000), collection of taxes (Rs. 31,000), water-supply (Rs. 21,000), conservancy (Rs. 21,000), public safety (Rs. 15,000), and repayment of loans with interest (Rs. 65,000). A house tax has recently been sanctioned.

The water-works were completed in 1896. The supply is taken from the Upper Ganges Canal, 9 miles away, at a place called Bhola.

The engines by which the supply is raised are worked by turbines turned by the water in the canal falls. In 1903-4 the daily consumption of water amounted to between 4 and 5 gallons per head. The drainage of the city is good, and all channels have been lined with masonry and the whole system recast within the last few years.

The normal garrison in the cantonments consists of four regiments of British and Native cavalry and infantry, and two horse and two field batteries. The income of cantonment funds in 1903-4 was 1·4 lakhs, and the expenditure 1·2 lakhs. The chief taxes are octroi and a house tax.

The prosperity of the city was originally due to the presence of a large cantonment, and the population was in fact larger in 1853 than in 1872. The extension of the North-Western Railway in 1867 and 1869, however, laid the foundation of a more extended trade than the supply of local needs. In 1887 a bonded warehouse was opened about a mile from the city station, with which it is connected by a branch line, and 8 or 9 lakhs of maunds of grain, and nearly as much sugar, pass through this every year. Cotton cloth, building materials, oilseeds, spices, and *ghī* form the chief imports. Manufactures are not yet of much importance, but there are a large soap factory and a flour- and oil-mill. An important agricultural show is held annually near the Nauchandī temple, a mile from the city. The exhibits include 1,800 horses, besides cattle, agricultural products and implements, &c.; and valuable prizes are given.

The chief educational institutions are the Meerut College and the normal school. The former was founded in 1892 at a cost of 2 lakhs raised by subscriptions, and receives an annual grant of Rs. 8,000 from Government. It had 123 pupils in 1903-4, of whom 15 were reading for a degree and 35 were in the First Arts classes. The oldest school belongs to the Church Missionary Society and has 129 pupils. There are eight other secondary schools with about 800 pupils, and four primary schools with 159 pupils, of whom over 100 are girls. Among the secondary schools may be mentioned that supported by the Arya Samāj, which is very strong here. The municipality spends about Rs. 10,000 annually on education.

Meghāsanī.—Mountain peak in Mayūrbhanj, one of the Orissa Tributary States, Bengal, situated in 21° 38′ N. and 86° 21′ E. Its height is 3,824 feet; there is a plateau on the top of the hill.

Meghnā, The.—Great estuary of the Bengal delta, which conveys to the sea the main volume of the waters of both the GANGES and the BRAHMAPUTRA, and thus forms the outlet for the drainage of half India. The name is properly applied only to the channel of the old Brahmaputra, from Bhairab Bāzār downwards, after it has received the SURMĀ or Barāk from Sylhet, in 24° 2′ N. and 90° 59′ E.; but some

maps mark the head-waters of the Meghnā as a small stream meandering through the centre of Mymensingh District, and joining the Brahmaputra near Bhairab Bāzār. At the present time the main streams of the Brahmaputra or JAMUNĀ, and of the Ganges, unite at Goalundo in Eastern Bengal, and, under the name of the PADMĀ, enter the estuary of the Meghnā opposite Chāndpur. The Meghnā proper runs almost due south, and forms the boundary between the Dacca Division to the west and the Chittagong Division. It nowhere flows between clearly defined banks; and it enters the sea in 22° 25′ N. and 91° 16′ E., after a course of 161 miles, by four principal mouths, enclosing the islands of DAKHIN SHĀHBĀZPUR, HĀTIA, and SANDWĪP.

The general characteristics of the Meghnā are everywhere the same—a mighty rolling flood of great depth and velocity, sometimes split up into half a dozen channels by sandbanks of its own formation, sometimes spreading out into a wide expanse of water which the eye cannot see across. It is navigable by native boats of the largest burden, and also by river steamers all the year round; but navigation is difficult and sometimes dangerous. At low tide the bed is obstructed by shifting sandbanks and snags; and when the tide is high or the river is in flood, and especially when the monsoon is blowing, the surface often becomes too boisterous for heavy-laden river craft to ride in safety. The most favourable season for navigation is between November and February; but even in those months the native boatman fears to continue his voyage after nightfall. Alluvion and diluvion are constantly taking place, especially along the sea-board, where the antagonistic forces of river and ocean are ever engaged in the process of land-making. In Noākhāli District the mainland is steadily advancing seawards; while the islands fringing the mouth are annually being cut away and re-deposited in fresh shapes. For some years past the Meghnā has shown a tendency to shift its main channel gradually towards the west.

The tidal phenomena of the Meghnā surpass those of any other Indian river. The regular rise of the tide is from 10 to 18 feet; and at spring-tides the sea rushes up in a single wave, known as the 'bore.' On the Meghnā the bore is no mere spectacle for admiration, but a justly dreaded danger to boatmen. It may be witnessed in its greatest development at the time of the equinoxes, when navigation is sometimes impeded for days together, especially when the wind blows from the south. Before anything can be seen, a noise like thunder is heard seawards in the far distance. Then the tidal wave suddenly comes into view, advancing like a wall topped with foam, of the height of nearly 20 feet, and moving at the rate of 15 miles an hour. In a few minutes all is over, and the brimming river has at once changed from ebb to flood-tide.

A still greater danger than the bore is the storm-wave which occasionally sweeps up the Meghnā in the wake of cyclones. These storm-waves also are most liable to occur at the break of the monsoons in May and October. In the cyclone of May, 1867, the island of HĀTIA was entirely submerged by a wave which is estimated to have reached a height of 40 feet. But the greatest of these disasters within the memory of man occurred on the night of October 31, 1876. Towards evening of that day the wind had gradually risen till it blew a gale. Suddenly, at about midnight in some places, and nearer dawn in others, the roar of the bore was heard drowning the noises of the storm. Two and three waves came on in succession, flooding in one moment the entire country, and sweeping before them every living thing that was not lucky enough to reach a point of vantage. The destruction of human life on that memorable night is credibly estimated at 100,000 souls in the mainland portion of Noākhāli District and on the islands of Sandwīp and Hātia, or about 19 per cent. of the total population of these places. As usually happens in such cases, the mortality subsequently caused by cholera and a train of dependent diseases equalled that due directly to drowning.

[A full account of this calamity will be found in the *Report on the Vizagapatam and Backergunge Cyclones*, 1876.]

Mehar Subdivision.—Subdivision of Lārkāna District, Sind, Bombay, composed of the MEHAR, NASĪRĀBĀD, and KĀKAR *tālukas*.

Mehar.—*Tāluka* of Lārkāna District, Sind, Bombay, lying between 27° 2′ and 27° 21′ N. and 67° 30′ and 68° 8′ E., with an area of 328 square miles. The population in 1901 was 58,434, compared with 48,320 in 1891. The *tāluka* contains 64 villages, of which Mehar is the head-quarters. The density, 178 persons per square mile, greatly exceeds the District average. The land revenue and cesses in 1903-4 amounted to 2·8 lakhs. The *tāluka* is irrigated by the Western Nāra and one of its feeders, the staple crops being *jowār* and rice. Prior to the floods of 1874 Mehar was very fertile, but the water has now become brackish and all the gardens have perished. Cultivation near the hills on the west depends entirely upon the rainfall.

Meherpur Subdivision.—Northern subdivision of Nadiā District, Bengal, lying between 23° 36′ and 24° 11′ N. and 88° 18′ and 88° 53′ E., with an area of 632 square miles. The subdivision is a deltaic tract, bounded on the north by the Jalangī; a considerable portion consists of a low-lying tract of black clay soil. The population increased from 336,716 in 1891 to 348,124 in 1901, the density being 551 persons per square mile. The subdivision contains the town of MEHERPUR (population, 5,766), the head-quarters; and 607 villages.

Meherpur Town (*Mihrpur*).—Head-quarters of the subdivision of the same name in Nadiā District, Bengal, situated in 23° 47′ N. and

88° 38′ E., on the Bhairab river. Population (1901), 5,766. Meherpur was constituted a municipality in 1869. The income during the decade ending 1901–2 averaged Rs. 4,400, and the expenditure Rs. 3,500. In 1903–4 the income was Rs. 3,900, half of which was obtained from a tax on persons; and the expenditure was Rs. 3,800. The town contains the usual public offices; the sub-jail has accommodation for 13 prisoners. The Church Missionary Society has a branch at Meherpur. Good bell-metal ware is manufactured.

Mehidpur Zila.—District of the Indore State, Central India, lying between 23° 5′ and 23° 48′ N. and 75° 32′ and 76° 35′ E., in the Sondhwāra division of MĀLWĀ, with an area of 840 square miles. It consists of two separate sections: the main block, and the Sundarsī *pargana* which lies south-east of the former. The country is typical of Mālwā, consisting of an open undulating plain covered with black cotton soil. It is watered by the Siprā, Kālī Sind, and Chhotī Kālī Sind, and has an annual rainfall of 25 inches. The population decreased from 120,869 in 1891 to 91,857 in 1901, giving a density in the latter year of 109 persons per square mile. The District contains two towns, MEHIDPUR (population, 6,681), the head-quarters, and TARĀNA (4,490); and 432⅓ villages. The one-third village is due to the curious tripartite possession of Sundarsī by the Gwalior, Dhār, and Indore Darbārs, each State having an equal portion of the place.

For administrative purposes the district is divided into five *parganas*, with head-quarters at Mehidpur, Jhārda, Tarāna, Makron, and Sundarsī, each in charge of an *amīn*, while the whole is in charge of a *Sūbah*, whose head-quarters are at Mehidpur. The total revenue is 4·8 lakhs. The principal routes lead to Nāgda on the Ujjain-Ratlām and Tarāna Road on the Ujjain-Bhopāl Railways. The Nāgda-Muttra branch of the Bombay, Baroda, and Central India Railway, now under construction, will pass through Godāpur, 10 miles from Mehidpur. Metalled roads run from Tarāna to Sumrākhera and from Mehidpur to Pātpārsī, and a portion of the Ujjain-Agar high road also traverses the district. Several new roads are under construction.

Mehidpur Town (also *Mahatpur* or Mahidpur).—Head-quarters of the district and *pargana* of the same name in Indore State, Central India, situated in 23° 29′ N. and 75° 40′ E., on the right bank of the sacred Siprā river, 24 miles north of Ujjain, 1,543 feet above sea-level. Population (1901), 6,681. The town is divided into two separate sections, known as the *kila* or fort and the *purwa* or hamlet. The *kila* is an isolated quarter, surrounded by a bastioned stone wall, and situated on the river bank. It was built in the eighteenth century by the Vāgh Saranjāmi *sardārs*, locally known as the Vāgh Rājās. Its streets are dark and narrow, with tall stone houses on either side, often ornamented by graceful balconies and windows of carved wood.

Throughout the *kila* and on the *ghāts* along its western front are numerous remains of Hindu temples, destroyed during the Muhammadan occupation. The *purwa* is also enclosed by a stone wall, and, though formerly a place of importance, is entirely lacking in buildings of merit or interest. To the east stands the tomb of Godar Shāh, a Muhammadan saint, from which a fine view of the town and river and the surrounding country is obtained. To the south, along the steep eastern bank of the river, lie the remains of the old cantonment, with its long avenue of lofty Millingtonias and the remains of the picturesquely situated bungalows; to the west stands the *purwa* with the *kila* beyond it, and across the stream a wide open plain, the field of the battle referred to below.

Mehidpur is supposed by Hindus to stand in the Mahākālban or great sacred forest of Mahākāl, which is said to have formerly covered all the country round Ujjain. From this circumstance it derives special sanctity; and in 1897, when cholera interfered with the attendance at the great Sinhast religious fair at Ujjain, about 5,000 *sādhus* performed their ablutions in the Siprā at Mehidpur instead. After the occupation of Mālwā by the Muhammadans, it was renamed Muhammadpur and appears under that name in local documents, and in the *Ain-i-Akbarī*, where it is shown as the chief town of a *mahāl* in the Sārangpur *sarkār* of the *Sūbah* of Mālwā. This name, however, has never come into general use. About 1740 it was assigned as a *saranjāmī jāgīr* by Malhār Rao Holkar I to his feudatories the so-called Vāgh Rājās, who until 1817, when Malhār Rao II confiscated their holding, virtually ruled this part of Mālwā. The descendant of the Vāgh Rājās still lives in the fort and holds a small grant of land.

About 2 miles to the south-west across the river the battle-field of Mehidpur is still marked by a small cemetery, containing the graves of nine officers who fell on that occasion. Sir John Malcolm, who commanded the forces engaged in this battle, arrived at Gannia village, 20 miles south of Mehidpur, on December 19, 1817. On the morning of the 20th Tulsī Bai was murdered by Ghafūr Khān, and all negotiations fell through. Malcolm then pushed on along the right bank of the Siprā. The enemy were drawn up on the left bank, so as to form the chord of a bend in the stream. The river was forded under a heavy fire and the position carried at the point of the bayonet. Except the artillerymen, who, as usual, stood to their guns till they were bayoneted, Holkar's troops offered no effective resistance. The losses, which were entirely due to the fire of Holkar's guns, amounted to 174 killed, including 9 British officers, and 606 wounded. Malcolm moved on to Mandasor, where a treaty with Holkar was signed on January 6, 1818.

Mehidpur was selected as a station for the Mehidpur Contingent raised under the treaty of 1818, and remained a military station till

1882. On November 8, 1857, the troops were attacked by a number of Rohillas from the town, the Muhammadans in the Contingent joining with the mutineers. Two British officers were killed, the European sergeant escaping to Indore, escorted by some Hindu troops of the corps. After the Mutiny, Mehidpur became the head-quarters of the Western Mālwā Political Charge until 1860, when they were transferred to Agar.

Trade is declining for want of good communications, though a considerable amount of poppy is grown in the neighbourhood, and crude opium is sent to Ujjain for manufacture. A municipality has recently been constituted. Mehidpur contains the *zila* and *pargana* offices, a British post office, several schools, a hospital, and an inspection bungalow.

Mehkar Tāluk.—Southern *tāluk* of Buldāna District, Berār, lying between 19° 52′ and 20° 25′ N. and 76° 2′ and 76° 52′ E., with an area of 1,008 square miles. The population fell from 153,046 in 1891 to 120,792 in 1901, the density in the latter year being 120 persons per square mile. The *tāluk* contains 313 villages and one town, MEHKAR (population, 5,330), the head-quarters. The demand for land revenue in 1903–4 was Rs. 2,73,000, and for cesses Rs. 21,000. The *tāluk* lies in the Bālāghāt, in the south-western corner of Berār; but the valleys of the Pengangā and the southern Pūrna, which traverse it, contain fertile tracts.

Mehkar Town.—Head-quarters of the *tāluk* of the same name in Buldāna District, Berār, situated in 20° 10′ N. and 76° 37′ E. Population (1901), 5,330. According to a legend, it takes its name from Meghan Kara, a demon who was overpowered and slain by Sārangdhar, an incarnation of Vishnu. A Muhammadan poet informs us that Mehkar is 795 years older than the Hijrī era. A fine specimen of a Hemādpanti temple is situated here. Mehkar is mentioned in the *Ain-i-Akbarī* as the head-quarters of a *sarkār*, or revenue district. In 1769 Mādhu Rao Peshwā, accompanied by Rukn-ud-daula, the Nizām's minister, encamped here with the intention of punishing Jānojī Bhonsla, who had assisted Raghunāth Rao's insurrection. General Doveton also encamped here in 1817 on his march to Nāgpur against Appa Sāhib Bhonsla, who had broken the Treāty of Deogaon. Mehkar formerly contained many weavers, Hindu and Muhammadan. The latter were so rich that they not only undertook to fortify the place, but could afford to build up the fallen rampart, as appears from an inscription dated 1488 on the Mūmins' Gate, still standing. Pindāri inroads reduced the town to great distress, and its ruin was completed by the great famine of 1803, after which only 50 huts remained inhabited. Excellent *dhotīs* were formerly woven at Mehkar, but the cheapness of European fabrics has lessened the demand for these.

Mehmadābād Tāluka.—North-western *tāluka* of Kaira District,

Bombay, lying between 22° 44′ and 22° 55′ N. and 72° 36′ and 72° 57′ E., with an area of 171 square miles. It contains 66 villages and two towns, MEHMADĀBĀD (population, 8,166), the head-quarters, and KAIRA (10,392), the District head-quarters. The population in 1901 was 75,926, compared with 92,367 in 1891. The density, 444 persons per square mile, is almost equal to the District average. The land revenue and cesses in 1903-4 amounted to nearly 2·4 lakhs. The *tāluka* consists of a rich level plain, mostly open and thinly wooded. The land is poor, light, and sandy, but a portion is suited for rice cultivation. The Meshvo and Vātrak are shallow streams running south-west.

Mehmadābād Town (*Mahmūdābād*).—Head-quarters of the *tāluka* of the same name in Kaira District, Bombay, situated in 22° 50′ N. and 72° 46′ E., on the Bombay, Baroda, and Central India Railway, 17 miles south of Ahmadābād. Population (1901), 8,166. It was founded in 1479 by Mahmūd Begara, who ruled in Gujarāt from 1459 to 1511, and improved by Mahmūd III (1537-54), who built a deer-park with an enclosure 6 miles long. At each corner of the park was a palace with gilded walls and roof. On the right-hand side of the gates leading to the palaces were placed bazars. Of the existing objects of interest, the most notable are two tombs in the village of Sojāle, about 2 miles to the north-east of the town, built in 1484 in honour of Mubārak Saiyid, one of the ministers of Mahmūd Begara, and of his wife's brothers. Mehmadābād has been a municipality since 1863, with an average income of Rs. 9,500 during the decade ending 1901. In 1903-4 its income was Rs. 9,600. The town contains a dispensary and four schools, three (including an English middle school with 57 pupils) for boys and one for girls, attended by 427 and 102 pupils respectively.

Mehndāwal.—Town in the Khalīlābād *tahsīl* of Bastī District, United Provinces, situated in 26° 59′ N. and 83° 7′ E., 27 miles north-east of Bastī town. Population (1901), 10,143. Mehndāwal is administered under Act XX of 1856, with an income of about Rs. 1,000. It is the chief commercial centre in the District, being a great mart for trade with Nepāl; but it has suffered from the opening of railway stations elsewhere. Most of the town consists of mud hovels, but there are several fine market-places. It also contains a dispensary and a school with 88 pupils.

Mehsāna Tāluka.—*Tāluka* in the Kadi *prānt*, Baroda State, with an area of 195 square miles. The population fell from 83,651 in 1891 to 75,254 in 1901. The *tāluka* contains one town, MEHSĀNA (population, 9,393), the head-quarters; and 83 villages. Its aspect is sometimes that of an even plain, sometimes that of a gently undulating country. The Rupen and Khāri flow through the northern portion.

The surface soil is generally light and sandy. In 1904-5 the land revenue was Rs. 2,51,000.

Mehsāna Town.—Head-quarters of the *tāluka* of the same name, Kadi *prānt*, Baroda State, situated in 23° 42′ N. and 72° 37′ E. Population (1901), 9,393. The town is chiefly important as a railway centre, for here the Gaikwār's State railways from Kherālu, Pātan, and Viramgām converge to meet the main line of the Rājputāna-Mālwā Railway. It is the most central town in the *prānt*, and in 1904 became the head-quarters in place of Kadi. A magnificent building, which forms a conspicuous object close to the town, has recently been erected, partly for the purposes of public offices and partly as a palace for the Gaikwār. Otherwise there are no buildings of any great mark. Mehsāna is administered by a municipality, receiving an annual grant of Rs. 4,700. It possesses Anglo-vernacular and vernacular schools, a dispensary, a magistrate's court, and local offices.

Mehwās Estates.—A group of six estates in the West Khāndesh District of Bombay, lying between 21° 30′ and 22° N. and 74° 10′ and 74° 50′ E., in the extreme west of Khāndesh, situated partly among the western extremities of the Sātpurās, and partly on the low ground below the hills, spanning the interval between the Narbadā and Tāpti rivers. Population (1901), 14,639. The estimated gross yearly revenue is Rs. 70,000. The tract is broken and wild, and more or less covered with forest; it is abundantly watered by mountain streams flowing into the Narbadā and Tāpti. The climate is unhealthy and feverish from October to March. The estates are inhabited chiefly by Bhīls, with a sprinkling of Pāvras. In all parts there is a great deal of rich black soil, but cultivation has much decreased since the famine of 1900. As the supply of grain does not meet the local demand, the people eke out a living on fruits, roots, and other forest produce. The main articles of trade are timber, *mahuā* flowers and seed, and myrabolams. The chieftains settle petty cases, but all important matters go before the Collector and Assistant Collector, who are respectively Agent and Assistant Agent. Civil and criminal justice are regulated by rules framed under Act XI of 1846. The six estates are:—

Estates.	Area in square miles.	Number of villages.	Population, 1901.	Gross receipts.	Tribute paid to Government.
				Rs.	Rs.
Chikhli . .	200	38	3,579	15,813	...
Kāthi . .	500	96	7,789	22,298	133
Raisingpur .	200	80	2,258	19,706	...
Singpur . .	20	4	524	8,129	...
Nāla . .	23	6	232	3,440	...
Nawalpur .	20	5	257	645	...
Total	963	229	14,639	70,031	133

The ancestors of the Chikhli chieftain originally held lands from Rājpīpla; Jiva, the founder of the family, taking advantage of the turbulent times, established his power over 84 villages. A sum of Rs. 3,000, assigned by Government as an hereditary allowance, made mainly for foot and horse police in lieu of the blackmail formerly levied, was discontinued in the time of Rāmsing (1854–74). The ancestors of the Raisingpur (Gauli) chieftain were feudatories of Rājpīpla, and are said to have been ruined on its subversion by the Gaikwār (1763–1813). The remaining four chieftains were originally dependants of the chief of Budhawal; but in 1845 the latter was removed on suspicion of conniving at robberies in the neighbouring British territories, and his lands have since lapsed to Government.

Meiktila Division.—South-eastern Division of Upper Burma, lying wholly in the dry zone, between 19° 27′ and 22° 1′ N. and 94° 43′ and 96° 54′ E., with an area of 10,852 square miles. It comprises four Districts: Kyaukse, Meiktila, Yamethin, and Myingyan. Kyaukse, Meiktila, and Yamethin lie, one south of the other in the order named, on each side of the Mandalay-Rangoon railway, while Myingyan extends westwards from the borders of Kyaukse and Meiktila to the Irrawaddy. The Division is bounded on the north by Mandalay and Sagaing; on the east by the Southern Shan States; on the south by Toungoo and Magwe; and on the west by Minbu, Pakokku, and Sagaing. The population was 901,924 in 1891 and 992,807 in 1901. The distribution in the latter year is shown in the following table:—

District.	Area in square miles.	Population.	Land revenue and *thathameda*, 1903-4, in thousands of rupees.
Kyaukse . . .	1,274	141,253	8,62
Meiktila . . .	2,183	252,305	5,13
Yamethin . . .	4,258	243,197	5,20
Myingyan . . .	3,137	356,052	6,68
Total	10,852	992,807	25,63

There are 4,415 villages and 6 towns: MYINGYAN (population, 16,139), PYINMANĀ in Yamethin District (14,388), YAMETHIN (8,680), MEIKTILA (7,203), NYAUNGO-PAGAN (6,254), and KYAUKSE (5,420). The head-quarters are at Meiktila, situated near the centre of the Division, and connected by rail with the three outlying District head-quarters. Myingyan is a commercial centre of some importance, and Yamethin and Pyinmanā are trade centres. The population is almost exclusively Burmese, the total number of Burmans in 1901 being 963,228. The only other indigenous races found in any strength are the Shans, inhabiting the hills on the borders of the Shan States, who

numbered 2,071 at the last Census, and the Karens (2,718), who approach their northernmost limit in Burma proper in the Yamethin hills. There were 14,536 Musalmāns and 5,143 Hindus in 1901, of whom the greater number, though not all, were natives of India.

Meiktila District.—District in the Meiktila Division of Upper Burma, lying between 20° 40′ and 21° 25′ N. and 95° 28′ and 96° 35′ E., with an area of 2,183 square miles. It is the most easterly of the Districts forming the dry zone of Burma, and is bounded on the north by the Districts of Kyaukse and Myingyan; on the south by Yamethin and Magwe; on the east by various small States of the Myelat division of the Southern Shan States; and on the west by Myingyan and Magwe. The District slopes generally from west to east until the Samon river is reached, after which it gradually rises again to meet the flanks of the outermost Shan hills. The central portion of the western boundary runs along the crest of a ridge of moderate altitude, with parallel ridges of lesser height on either side. Here the ground is rocky and boulder-strewn, and the vegetation scanty, consisting mainly of stunted trees and scrub. To the north and south of these ridges the country in the west, though still high, becomes flatter, and for a considerable distance east of the border the District is scored from north to south by deep watercourses with precipitous sides. The Mahlaing township, occupying the north-western quarter, has an undulating surface, characterized by ridges running north and south. It has few level plains, and the valleys are often so narrow that the fields look like a winding river of grain. The south-western corner, comprising the Meiktila township, is also of a rolling character, though here the broken ground extends to a greater distance from the western boundary than farther north. Bounding the Mahlaing township on the east, and bisecting the District, is a ridge called the Minwin *kondan*, extending from the northern boundary of the District to a little south of Meiktila town. The town of Meiktila itself is built on this ridge, at an altitude of about 800 feet. Nearly parallel to the *kondan* and about 12 miles distant from it on the east is another ridge, known as the Pwemingyi *kondan* in the north, and the Tetbyindaung in the south. Both ridges have a gravelly and practically uncultivable soil. The intervening valley, 12 to 15 miles in width, runs the whole length of the District, and is level and waterlogged in parts. Low hills and stretches of rising ground, composed in part of nodular limestone, are met with here and there, chiefly on the west. Meiktila is almost the only District of Burma which possesses no navigable waterways. Its most important river is the Samon, which, rising in Yamethin, enters Meiktila in the south-east near the foot of the Shan hills, and flows due north into Kyaukse. It is not, however, navigable within

Physical aspects.

the limits of the District, being more or less dry, except during the rains. Between it and the Pwemingyi ridge is a valley, 6 or 7 miles in width, which gradually rises towards the south, and is irrigated by numerous tanks. The Thinbon *chaung* rises on the eastern slopes of Popa, flows in a north-easterly direction through the Mahlaing and Wundwin townships, and falls eventually into the Samon at the extreme northern end of the District. Within the limits of Meiktila the Panlaung is merely a mountain brook.

One of the main features is the Meiktila lake, situated on the Minwin ridge, about 800 feet above sea-level. This artificial stretch of water is about 7 miles long and $3\frac{1}{2}$ square miles in extent, and at the centre, near Meiktila, is so narrow as to be practically divided into two sections, north and south. The northern lake is diminishing in capacity yearly, owing to the deposit of silt from its feeder streams, the Shanmange and the Mondaing; and both sections are subject to very rapid rises after heavy rain over their area of supply. Another important piece of water is the Nyaungyan-Minhla tank or lake, situated near the southern border of the District. It derives its water from the Chaunggauk and Chaungmagyi streams, both of which rise in the west, the former bounding the District on the south, the latter watering a considerable area of Yamethin District. The Nyaungyan and Minhla tanks were originally separated, but have now been joined by a canal.

The whole of the District is occupied by rocks of Upper Tertiary (pliocene) age, covered to a great extent with alluvium. In the western portion of the Mahlaing township the abrupt dip of the strata, visible to the naked eye by reason of the erosive action of the streams, appears to indicate that the tract has been the scene of violent volcanic upheavals, the slopes in some cases being not less than 70° to 80° from the horizontal. In the western areas the trunks of large petrified trees are found in the alluvium, and in some cases large areas are strewn with fragments of fossilized wood.

The vegetation of the District resembles that of KYAUKSE. In the plains it is of a very dry type; and sparse scrub jungle, with cactus, tamarind, cutch, and several species of capers, covers the greater part of the non-cultivated area. On the hills in the east the growth is more luxuriant, and the bamboo is found. Its main features are described under the head of Forests below.

Tigers, bears, bison, elephants, and *sāmbar* are all found, but only to the east of the Samon near the hills. Leopards are said to be increasing in numbers. Other kinds of deer besides the *sāmbar* are shot in the plains, and in the cold season ducks and snipe are plentiful. As in most of the dry zone Districts, snakes (including the cobra, the *karait*, and the Russell's viper) are very common.

Meiktila lies along the eastern edge of the dry zone of Upper

Burma. The climate is dry but very healthy, except in the *taraï* east of the Samon river, where malarial fever is always prevalent. The cold season begins in November and ends in February, while the hot season lasts from February to June and the rains from June to October. The most unhealthy period is at the close of the rains. The great heat during the hot months is tempered by high winds, which blow continually from the south and south-west from March to May, and during a large portion of the rainy season as well, and the daily range of temperature is considerable. The minimum temperature in 1902 was 62° in January, while the maximum was 101° in May, and the mean for the year was 73° minimum and 89° maximum.

The rainfall is extremely capricious and always scanty. Only in three years since annexation (1886) can it be said to have been timely and abundant. Generally speaking, the annual amount received varies from 25 to 30 inches over the whole District. In 1891–2, however, only 12½ inches fell throughout the year, while in 1896–7, though the total was 28 inches, more than half fell in June and July. The rainfall is not only capricious in time but in the choice of localities, some tracts being left quite unwatered in some years, while others receive more than their due share.

It is reported that in 1872 there was a flood caused by the overflowing of the Samon river, which inundated a large portion of the country and destroyed all the crops. It is seldom, however, that the District suffers from an excess of water.

History.

A tradition of doubtful authenticity relates that the name *Matila* (meaning 'it does not reach') was given by Anawrata, king of Pagan, to the present town of Meiktila to commemorate the death from exhaustion of a horseman sent to report whether the lake extended to Popa, who returned with a negative answer on his lips. From the earliest times the District formed an integral part of the kingdom of Upper Burma, whether centred at Pagan, Ava, Amarapura, or Mandalay. The first place of note in the District mentioned in the Burmese chronicles is Pindale, now a village in the Wundwin township, which is said to have been founded by Sulathanbawa, a king of the Tharekhettra dynasty (*see* PROME DISTRICT). Later, in the eleventh century, Anawrata is reported to have visited Meiktila, and to have made the north embankment of the lake. The same monarch is credited with the foundation of Hlaingdet (1030). On the break up of the Pagan kingdom the country came under Shan dominion, and formed a portion of the principalities that strove for mastery in Upper Burma till the rise of the Toungoo dynasty. In due course it was absorbed into the Burmese empire of Pegu and later into the kingdom of Ava, of which it formed a part at the time of the annexation of Upper Burma. The country was disturbed during the

cold season of 1885–6, but was occupied by troops from Pagan in March, 1886, when a force advanced through Mahlaing and Meiktila to Yamethin, a civil officer being left at Mahlaing and a military post being established at Meiktila, which was for the time made over to Yamethin District. At that time the Mahlaing township formed part of Myingyan, but the present District was constituted in October of the same year. The garrison of Meiktila was engaged during 1886 with the Yamethin dacoits on the one side and the Kyaukse dacoits on the other, while in the District itself were rebel leaders who had served the Myinzaing prince (*see* KYAUKSE DISTRICT). These were driven out again and again from their head-quarters at the foot of the Shan hills, whence they were in the habit of retiring to the Yengan and Lawksawk States on being pressed. A former Burmese cavalry officer, one Tun E, rendered valuable service at this time with a strong force of horse and foot, which he raised and maintained at his own expense. As time went on the outposts were gradually advanced, and the bands were dispersed, with a loss, however, of about 11 officers and 80 men during the year. In 1887 the dacoits at the foot of the Shan hills were attacked by a combined expedition from Kyaukse and Meiktila, and were driven with some loss from a strong position; and after that the District remained undisturbed, with the exception of the south-east portion, bordering on Myingyan District, which was raided from time to time by the cattle-lifters of Popa and the neighbouring country. By 1888 the District was practically settled.

There are a number of notable pagodas in the Mahlaing, Wundwin, and Thazi townships, the fame of some of which extends far beyond the District limits. The chief of these is the Shwezigon at Pindale, to which pilgrimages are made from all parts of Upper Burma. Others are the Shwesiswe, the Sutaungbyi, the Shwemoktaw, and the Shwe-yinhmyaw. Legend credits king Narapadisithu of Pagan with having built the Sutaungbyi. The Meiktila township contains six remarkable shrines, the Shwesawlu, the Nagayon, the Shwelehla, the Sigongyi, the Nandawya, and the Shwemyindin. When Anawrata, king of Pagan, came to repair the banks of the lake, he is said to have founded the Shwelehla and Nagayon pagodas, while his son, Saw Lu, built the Nandawya pagoda to the north of the Meiktila fort. This last is called, indifferently, the Saw Lu or Nandawya pagoda, because in 1796 Bodawpayā, the consolidator of Alaungpayā's conquests, built a temporary palace (Burmese, *nandaw*) at the lake side opposite the pagoda. At the same time his son founded the Sigongyi pagoda, north of the lake.

Population.

The population of Meiktila District was 217,280 in 1891 and 252,305 in 1901. Its distribution in the latter year is shown in the table on the next page.

The only District from which there has been any considerable

immigration is Myingyan. The greater part of the emigration is directed to Kyaukse and Yamethin Districts and to Lower Burma. In the hills in the east the villages are few and far between, but elsewhere the population is thick enough to raise the density in the District as a whole to over 100 persons per square mile. There are a certain number of representatives of the religions of India, but 98 per cent. of the community are Buddhist, and about the same proportion are speakers of Burmese. Shan is spoken far less than in the adjoining District of Yamethin.

Township.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Meiktila . .	466	1	390	76,656	164	+ 17	14,703
Mahlaing . .	426	...	250	62,890	148	+ 13	11,925
Thazi . .	696	...	316	49,824	72	+ 27	8,035
Wundwin . .	595	...	277	62,935	106	+ 11	7,004
District total	2,183	1	1,233	252,305	116	+ 16	41,667

The number of Burmans in 1901 was 245,900, or slightly over 97 per cent. of the total population. In the hills in the east of the District are about 1,300 Danus, who are regarded as Shans by the Burmans and as Burmans by the Shans; they are of mixed Shan and Burmese blood, and talk bad Burmese. At Ywagyi a village is inhabited by *payākyuns* or pagoda slaves, alleged to be the descendants of 400 men assigned to the pagoda by king Anawrata. The Indian immigrants in 1901 numbered 2,700, out of a total of 2,600 Musalmāns and 1,600 Hindus, so that about 1,500 of the representatives of these Indian religions must have been born in the country. In the Thazi township is a colony of Burmese-speaking Muhammadans, who account for a large proportion of this last total. They are the reputed descendants of a regiment in the army of king Mindon, who were said to be the offspring of a force of 3,000 men sent to Burma by the emperor of Delhi in the seventeenth or eighteenth century. About half the Indian population is domiciled in Meiktila town and cantonment. In 1901 the number of persons directly dependent upon agriculture was 178,370, representing 71 per cent. of the total population.

There are about 500 Christians, largely British soldiers, the majority of whom are Anglicans or Roman Catholics. There is not much active mission work in the District. The total of native Christians is 234.

The agricultural conditions are typical of the dry zone, Meiktila

being probably the poorest of all the Districts lying in that area. Rice is grown in suitable tracts; where it cannot be raised, the ordinary crops of the dry zone are cultivated. The soil in the valleys near the two ridges described above is covered with *kyatti*, a yellowish soil, greasy and slightly clayey when wet, hard when dry, and fit only for rice, of which it produces the poorest crops. The best rice tract is composed of black cotton soil (*sane net*), a stiff, tenacious, and adhesive clay. An ample supply of water is, however, a more important factor in the production of rice in Meiktila than a good quality of soil; and the only good crops are obtained on the lands irrigated from the numerous tanks in the Meiktila and Nyaungyan-Minhla systems, and the weirs thrown across the Thinbon *chaung*. A considerable area of rice land, especially the valley between the two ridges mentioned above, is impregnated with natron or soda (*satpya*), an element which necessitates constant supplies of clean water to the crops. The beds of some of the streams unfortunately show abundant traces of the presence of natron, and the evil is spreading. Even when fresh water is constantly supplied, a *satpya*-impregnated field will not produce the full crop of an ordinary field; and if the water stands for long it turns the colour of congealed blood, and the rice stalks are apt to bend over and break and assume a bedraggled and rusty appearance. The methods of rice cultivation do not differ from those in use in Upper Burma generally. Practically all the *kaukkyi* (wet-season) rice is transplanted from nurseries. *Jowār* takes the place of *kaukkyi* on rice lands in years of scanty rainfall. Cotton is cultivated for the most part on the high ground in the north-west, and is only grown as a rule once on the same ground in three years, sesamum, *jowār*, or beans intervening. Early sesamum (*hnanyin*) is reaped between June and September; late sesamum and *jowār* between October and January. Other crops cultivated in the District are chillies, peas and beans, tomatoes, maize, onions, gram, sweet-potatoes, cucumbers, pumpkins, brinjāls, Goa beans, betel-vines, sugar-cane, and toddy-palms.

Agriculture.

The following table gives the main agricultural statistics of the District for 1903–4, in square miles:—

Township.	Total area.	Cultivated.	Irrigated.	Forests.
Meiktila	466	180	32	405
Mahlaing	426	143	5	
Thazi	696	103	47	
Wundwin	595	117	52	
Total	2,183	543	136	405

The staple crop is rice (practically all *kaukkyi* or wet-season rice) grown on 202 square miles, a figure approached only by that for *jowār*,

which covers 188 square miles. A large area (135 square miles) is under sesamum, a crop generally followed by a second harvest of rice, *jowār*, maize, or beans. Nearly 52 square miles in the Meiktila township alone produce early sesamum. In 1903–4 about 40 square miles were under cotton. Of this area, 31 square miles lay in the Mahlaing township, adjoining the main cotton-producing area in Myingyan District. Meiktila grows the largest chilli crop in the Province, 17 square miles being devoted to the cultivation of this condiment. The other crops referred to in the preceding paragraph are produced on a smaller scale. Toddy-palms are planted to a large extent in the north-western part of the District. The average area of a holding is about 7 acres in the case of rice land, and about 11 in the case of *ya* or uplands.

No loans have been made under the Land Improvement Loans Act. Free recourse was had to the Agriculturists' Loans Act during the scarcity of 1896–7, and since then the utility of this enactment has been proved more than once. About Rs. 9,000 was advanced in 1900–1, and the system was so much appreciated by the villagers that during the following three years the loans averaged nearly Rs. 30,000 per annum.

Cattle-breeding is carried on to a considerable extent. Buffaloes have been introduced from Lower Burma in small numbers, but are not bred in the District.

There are no reserved grazing grounds, sufficient pasturage being afforded by fallow and uncultivable lands, broken and hilly ground, and scrub jungle. No difficulties are experienced in feeding live-stock, except during a period of drought, when cultivators usually emigrate to areas where there is no distress. The only expenditure incurred by the owners of breeding cattle is the hire of the herdsman who takes the beasts out to graze. Goats and sheep are reared with success by natives of India in Meiktila town and in a few villages. Hogs are also bred, but only in small numbers.

The chief sources of irrigation are the Meiktila lake, the Nyaungyan-Minhla tank, the Inyin *se* (or dam), the Wundwin *se*, and the Nyaungbinhla *se*. The Meiktila lake draws its supplies from the high land east of Popa, having a catchment area of over 200 square miles. The area irrigated from the system of tanks and distributaries fed by it extends north-eastwards to Wundwin, and eastwards to Thazi, and the total at present commanded by the lake is 43 square miles. The portion of this total actually irrigated varies considerably from year to year. The Nyaungyan-Minhla tank, described above, is really composed of two tanks joined by a channel. New irrigation works have considerably diminished its catchment area, which is now estimated at 200 square miles, the area commanded being 30 square miles, though only 6,000 acres are at present actually irrigated. The Inyin *se* is a

stone crib-work weir (with flanking banks), thrown across the Thinbon *chaung* near Chaunggon, a village to the north of Meiktila town. It is capable of watering nearly 10,000 acres, but usually irrigates about half that amount. The water passing over the weir is dammed below by numerous temporary *ses*, which distribute the water over a considerable area. The dam was seriously breached in September, 1905. The Wundwin *se* is situated close to Wundwin, its supply being derived chiefly from the Meiktila lake system and a watercourse known as the Natmyaung. It irrigates as a rule about 4,500 acres. The Nyaungbinhla *se* consists of a crib-work weir thrown across the Samon river just below where it enters the District in the south. It diverts the water to the north-east, and serves on an average about 3,000 acres. The District contains hundreds of small tanks, fed by weirs which hold up the freshes in the streams; they are, however, maintained by the cultivators themselves, and are not Government works. Altogether 136 square miles were returned as irrigated in 1903-4. Of this total, 50,500 acres were served by the numerous private tanks scattered over the country, and 35,600 acres by Government tanks and canals. The irrigated land is almost wholly given up to rice cultivation.

Forests.

Several types of forest occur in the District. The western areas are covered with dry scrub growth, in which the principal species are *sha* (*Acacia Catechu*), *kan* (*Carissa Carandas*), *pyinzin* (*Rhus paniculata*), *dahat* (*Tectona Hamiltoniana*), and here and there a *tanaung* (*Acacia leucophloea*), or a group of tamarinds. The only species of any importance is the *sha*, yielding the cutch of commerce, but this has been overworked in the past. Along the banks of the Samon *chaung* the growth improves, and in places which have escaped the attention of contractors supplying fuel to the railway it approaches the condition of high forest. The chief species in this belt are *than* (*Terminalia Oliveri*), *dahat* (*Tectona Hamiltoniana*), *thamon* (*Niebuhria sp.*), *nabe* (*Odina Wodier*), and *tapauk* (*Dalbergia paniculata*), with the *myinwa* (*Dendrocalamus strictus*) as the common bamboo. None of these is of any commercial importance, though the extract prepared from the bark of the *than* has been reported on very favourably as a tanning material. On the slopes of the hills draining into the Samon *chaung* the forest is of the familiar *indaing* type, the principal species being *in* (*Dipterocarpus tuberculatus*), *thitya* (*Shorea obtusa*), and *ingyin* (*Pentacme siamensis*), all yielding building timber. Still farther to the west, in the basin of the Panlaung *chaung*, mixed dry forests predominate, containing valuable timber trees, such as teak, *padauk*, and *pyingado* (*Xylia dolabriformis*), as well as the *thitya*, *ingyin*, and other growths. In 1903-4 the total area of 'reserved' forests was 105 square miles, of which 49 square miles were cutch Reserves; and it was estimated that the unclassed forests covered

a further 300 square miles. With the exception of about 30 acres of paddy-fields acquired at settlement in the Aingtha and Thinbon *chaung* Reserves, which were ploughed and sown broadcast with cutch seed, no planting operations have been undertaken. The total forest receipts in 1903-4 amounted to only Rs. 2,500.

Meiktila possesses few minerals of economic importance. Limestone appears in small quantities in many parts of Mahlaing, but is said to have no industrial value, though a very fair lime can be obtained from it. The natron that accumulates on the soil in the *satpya*-laden tracts is collected and used as a cosmetic. Coal has been found in the Kyetkauk hill south-east of Hlaingdet in Thazi, and also in the Suban circle; and brine-springs occur in a few places in the Wundwin township.

Trade and communications.

The District is essentially agricultural, and the great majority of the population depend wholly on husbandry for a livelihood, so that there are few manufactures. Bamboo basket- and mat-work is carried on to a limited extent, but the output is not more than sufficient for local requirements. The only special industry is the manufacture of rough pottery, carried on in the Wundwin, Mahlaing, and Thazi townships. The experiment of weaving cotton cloth by machinery is being tried in the villages of Shawbin and Aingtha in Wundwin. A cotton-ginning factory has been established at Mahlaing, and the cotton, after being ginned, is exported to Lower Burma and Bhamo. Butter is manufactured at Meiktila, and goes to Rangoon and Mandalay.

The District carries on a steady trade with the Southern Shan States by way of the Thazi-Taunggyi Government road. A good deal of the traffic that starts from Taunggyi is diverted into Yamethin; a fair portion of it, however, reaches Meiktila District and is registered at Kywelebin. The imports from the Shan States by the Kywelebin route were valued at 4 lakhs in 1903-4, the chief items being potatoes (valued at Rs. 74,600), lac (Rs. 1,08,000), ponies, vegetables, and various other articles, the most important of which is *thanatpet* for cigar wrappers. The exports to the Shan States by the same route were valued in the same year at 13·4 lakhs, including European cotton piece-goods (6·8 lakhs), betel-nuts (Rs. 36,800), cotton twist and yarn (Rs. 96,000), salt (Rs. 26,200), petroleum (Rs. 34,000), woollen goods, wheat, iron-work, salted fish, *ngapi*, *ghī*, and sugar. To other Districts in Burma Meiktila exports cutch and cotton, mainly to Rangoon and Mandalay by train, and to Bhamo via Mandalay by steamer. Cotton and silk goods and various manufactured commodities are brought in by the railway.

Though absolutely without navigable waterways, Meiktila is exceptionally well off in the matter of land communications. The railway line from Mandalay to Rangoon passes from north to south through

the District for $39\frac{1}{2}$ miles, and has four stations within its limits. The Myingyan branch from Thazi to the boundary at Ywatha runs diagonally north-westwards for $40\frac{1}{2}$ miles, with six stations, including those at Meiktila and Mahlaing. Thus, except in the extreme east, no portion of Meiktila is out of touch with the District head-quarters or the outside world.

The chief roads maintained by the Public Works department are: from Meiktila to Thazi ($15\frac{1}{2}$ miles, metalled), and thence via Hlaindet into the Shan States, crossing the Shan States border near Nampandet; from Wundwin to Mahlaing (29 miles); from Meiktila to Pindale (20 miles); from Meiktila to Mahlaing (31 miles); and on to Myingyan. All but the first of these are unmetalled. Various tracks, some of them maintained out of the District fund, connect the larger villages with each other and with the railway. The total length of metalled and unmetalled roads in 1903-4 was 24 miles and 107 miles respectively. The rainfall is so light that the village roads can be used practically at all seasons of the year.

Famine.

The capriciousness of the rainfall is responsible for frequent failure of the harvest. Scarcity occurred in 1891-2 owing to light rains, and caused considerable emigration to Lower Burma and Kyaukse, necessitating the opening of relief works. In severity, however, it was eclipsed by the famine of 1896-7. The previous year had been a lean one, and the rains held off from the middle of July till October, and ceased the same month. The needs of the people were, however, supplied by private enterprise; and though the price of rice at first rose to 7 seers to the rupee, it fell to 8 seers when food-grains were imported. The stringency of prices was not accompanied by any marked increase of crime except cattle-theft. During the period of famine cholera broke out in some parts of the District, but was soon stamped out. The death-rate, however, ordinarily between 25 and 30 per 1,000, rose in 1897 to 42 in March, April, and May, dropping gradually to normal in the autumn. The works undertaken for the relief of distress were the Thazi-Myingyan railway, and the Wundwin-Pindale and Meiktila Lake roads. In addition to other measures, advances were made in 1896-7 under the Agriculturists' Loans Act to the amount of Rs. 41,000, and in the following year to the amount of Rs. 53,000. The whole District was affected, and many of the villagers migrated to other parts of Burma. When the assessment of *thathameda* was made, it was found necessary to abstain from levying anything from 3,863 households, while the rest of the people were taxed at reduced rates of Rs. 3 and upwards. The total number of units relieved from October, 1896, to November, 1897, was $3\frac{3}{4}$ millions, the largest number in a month being 600,000 in January.

Administration.

The District is divided for administrative purposes into two subdivisions: Meiktila, comprising the MEIKTILA and MAHLAING townships; and Thazi, comprising the THAZI and WUNDWIN townships. They are in charge of the usual executive officers, under whom are 468 village headmen. At head-quarters are an *akunwun* (in subordinate charge of revenue), a treasury officer, and a superintendent of land records, with a staff of 5 inspectors and 50 surveyors. The District forms, with the rest of the Division, the Meiktila Public Works division, and contains two subdivisions. An Assistant Engineer is in charge of the Southern or Meiktila subdivision of the Eastern Irrigation division. The District forms part of the Kyaukse subdivision of the Mandalay Forest division.

The Commissioner is Sessions Judge for the District, and the Deputy-Commissioner is District Magistrate and District Judge. Four township courts and two subdivisional courts are subordinate to the District court. The township officers dispose of both civil and criminal work, as well as revenue business. It has been found necessary to appoint one additional judge (who is also treasury officer and head-quarters magistrate) to the Meiktila township court, and a second to assist the township officers of Thazi and Mahlaing in their civil work. A third additional judge spends half his time at Wundwin and half at Pyawbwe in Yamethin District. Besides the additional township judges, an additional judge (usually an Extra Assistant Commissioner) has been posted to Meiktila and Yamethin Districts, to relieve the District court of the greater part of its civil and criminal work. He sits half the month at Meiktila and half at Yamethin. A Cantonment Magistrate disposes of petty criminal cases within the limits of Meiktila cantonment. Cattle-theft is one of the most prevalent offences, the facilities for this form of crime being great.

Under native rule the District revenue was derived from *thathameda*, an irrigation tax, crown-land rents, bazars, and various law receipts. State land at that time covered a comparatively small area. The water revenue was collected by *myaunggaungs* or canal-keepers, who superintended the distribution of the water under the *kan-ok* or superintendent of the Meiktila lake. The *myaunggaungs* received neither pay nor commission, but doubtless took advantage of their position to levy extensive blackmail. At annexation the revenue on most of the state land was fixed at Rs. 16 per *pe* (1·75 acres), which was supposed to represent the value of one-quarter of the actual produce, but it was not long before this rate was reduced by about half. The irrigation tax was continued at a maximum rate of Rs. 2 per acre, and *thathameda* was collected at Rs. 10 a house, or the same rate as before. Survey operations went on from 1891 to 1895; and the settlement of the surveyed area, which included all the District west of the

Samon, was begun in 1896 and completed in 1898. In 1901–2 the rest of the District up to the foot of the Shan hills was surveyed, and settlement rates will shortly be introduced there also. At the settlement of 1896–8 the District was divided into two tracts: one comprised the greater part of the District from the Samon westwards; the other consisted of a strip of relatively poor upland bordering on Myingyan District in the west, containing very little state land, and only about 4,500 acres of cultivation. On the completion of the settlement, the *thathameda* was reduced from Rs. 10 to Rs. 3 a household, and fixed rates were introduced on state land, the rates on non-state land being levied at three-fourths of the rate on corresponding state land. In the first tract, rice land now pays from R. 1 to Rs. 5 per acre; other crops on rice land, R. 1; *ya* or upland crops, from 8 annas to Rs. 1–8 per acre; onions and chillies, Rs. 3; garden crops, from Rs. 2–8 (on plantain groves) to Rs. 15 (on betel-vines); sugar-cane, Rs. 10 per acre; and solitary fruit trees, 4 annas each. In the second and poorer tract, the rates on rice land vary from 7 annas to Rs. 3–8; and on *ya* lands from 4 annas to Rs. 1–2 per acre.

The following table gives the revenue, in thousands of rupees, for a series of years:—

	1890-1.	1900-1.	1903-4.
Land revenue . .	10	5,20	3,59
Total revenue . .	4,00	7,83	6,35

At one time *thathameda* was the main source of revenue, but on the introduction of settlement rates the receipts from this source fell below those from land revenue.

The income of the District fund in 1903–4 was Rs. 59,000, and the chief item of expenditure was public works, to which Rs. 52,000 was devoted. There are no municipalities.

The District Superintendent of police has a force of 3 inspectors, 8 head constables, 23 sergeants, and 289 constables, 24 of whom are mounted. There are 90 military police stationed at Meiktila and 30 at Thazi. Meiktila contains a District jail, with accommodation for 198 prisoners. The industries carried on are wheat-grinding, oil-pressing, cactus and *surkhi* pounding, carpentry, rope-making, and bamboo- and cane-work.

The standard of literacy according to the figures of the last Census is somewhat low for Burma. The number of Indian immigrants and backward hill tribes is not large, yet the proportion of literate males in 1901 (33 per cent.) was below that of any other District in the dry zone of Upper Burma, and the female percentage (1·7) was higher only than that of Magwe and a few of the most backward areas of the Pro-

vince. For both sexes together the proportion was 16 per cent. The number of pupils was 630 in 1891, and 6,903 in 1901. In 1904 the District contained 7 secondary, 82 primary, and 576 elementary (private) schools, with an attendance of 8,399 pupils, including 495 girls. The expenditure amounted to Rs. 21,700, Provincial funds supplying Rs. 16,900, fees Rs. 3,000, and subscriptions Rs. 1,800.

There are 2 hospitals, with a total of 33 beds; and 10,664 cases, of whom 444 were in-patients, were treated in 1903. The number of operations in the same year was 242. The expenditure amounted to Rs. 11,500, mostly derived from Provincial funds. Subscriptions realized Rs. 600.

In 1903-4 the number of persons successfully vaccinated was 9,130, representing 36 per 1,000 of population.

[R. A. Gibson, *Settlement Report* (1900).]

Meiktila Subdivision.—Western subdivision of Meiktila District, Upper Burma, comprising the MEIKTILA and MAHLAING townships.

Meiktila Township.—South-western township of Meiktila District, Upper Burma, lying on both sides of the Meiktila-Myingyan railway, between 20° 40′ and 21° 0′ N. and 95° 31′ and 96° 2′ E., with an area of 466 square miles. The population was 65,612 in 1891, and 76,656 in 1901, distributed in one town, MEIKTILA (population, 7,203), the head-quarters of the District and township, and 390 villages. The country is undulating and badly watered for the most part, except in the neighbourhood of the Meiktila lake. In 1903-4 the area cultivated was 180 square miles, and the land revenue and *thathameda* amounted to Rs. 1,38,000.

Meiktila Town.—Head-quarters of the Division and District of the same name in Upper Burma, situated in 20° 53′ N. and 95° 52′ E., on the Myingyan branch of the Burma Railway, 320 miles from Rangoon and 57 from Myingyan. It stands on the margin of a large artificial lake, with an irregular indented margin. The lake is practically divided into two bodies of water, the north and the south lake. Over the strip of water uniting the two run the railway bridge and a narrow wooden bridge which connects the town on the east with the civil station on the west. The population of Meiktila was 4,155 in 1891 and 7,203 in 1901, including over 2,000 persons of Indian origin. The town is built on irregular broken ground. On the highest point east of the southern lake lie the cantonments, from which a road runs along the embankment of the lake, passing through the town, near the railway station, and crossing the bridge to the civil lines, whence it is continued round the margin of the southern lake to the barracks again, thus forming a circular road of 7 miles in length. The town is not picturesque, and the number of flat-topped brick houses give it an Eastern, but quite un-Burmese, appearance. Only the *pongyi kyaungs*

and pagodas remain unchanged. There are trees in Meiktila itself; but the general impression on first arriving by train from Thazi is of bare, broken, stony ground, with scrubby jungle growing in patches, and the lake, with its diversified shores, comes as a pleasant surprise. The north lake has few buildings on its banks. West of it lies a small suburb called Kanna; and on its eastern shore are the military police lines, the American Baptist Mission, the bazar, and the Musalmān mosque. All these are divided by the railway line from the town proper.

There are no manufactures, but a fair trade in hides and other commodities is done with the surrounding villages. Cattle-breeding is carried on to some extent. Butter manufactured here is exported to Rangoon and Mandalay. Nearly all the *pongyi kyaungs* contain saw-pits, and new houses are constantly being built. Leases have lately been issued in the town, and the consequent security of land tenure encourages the growth of good wooden and brick buildings. There is a large bazar, where a market is held every fifth day, resorted to by all the country-side.

Most of the public buildings have been constructed within the last ten years. The main Government vaccine dépôt for Burma is located at Meiktila. It was started in 1902, and new buildings are to be erected in connexion with it. The expenses of the dépôt in 1903-4 amounted to Rs. 8,500, provided out of Provincial funds. The circuit-house is unusually large; and the club, built in one of the best positions on the shore of the lake, is a convenient and capacious building. The station contains two churches, for the Roman Catholic and Anglican communities, a jail, and a hospital. The usual strength of the garrison is one wing of British infantry and a regiment of Native infantry. Meiktila is also the head-quarters of a company of the Upper Burma Volunteer Rifles. The income of the cantonment funds in 1903-4 was Rs. 5,700, and the expenditure Rs. 5,600.

The lake is reserved for drinking and household purposes, and is carefully protected from possible pollution. The reputation of Meiktila as a healthy station is supposed to be largely due to its good supply of drinking-water. The depth of water in the lake varies very much, and the under-currents are strong. During the hot season it is occasionally swept by violent gusts of wind, which have caused several fatal boating accidents. The town has not yet been constituted a municipality; but a conservancy scheme for the urban area is now working well, and should increase the healthiness of this thriving and growing centre.

Mejā.—South-eastern *tahsīl* of Allahābād District, United Provinces, conterminous with the *pargana* of Khairāgarh, lying between 24° 47′ and 25° 19′ N. and 81° 45′ and 82° 19′ E., with an area of 650 square miles. Population fell from 195,221 in 1891 to 167,014 in 1901, the

rate of decrease being the highest in the District. There are 579 villages and two towns, including SIRSA (population, 4,159). The demand for land revenue in 1903-4 was Rs. 2,86,000, and for cesses Rs. 48,000; but the land revenue has since been reduced to Rs. 2,13,000. The density of population in the whole *tahsīl* is only 257 persons per square mile, but in the northern Doāb portion it rises to 469. The southern part of the *tahsīl* is a precarious tract, which has recently been brought under a system of fluctuating assessments. North of a low range of hills, which crosses the *tahsīl* from east to west at a distance of 5 to 10 miles south of the Ganges, conditions resemble those of the Doāb. A great plain of *mār* or black soil like that of Bundelkhand, and with low detached hills here and there, stretches south to the Belan. Beyond the Belan there is a tract of *mār* on the east, and on the west a small fertile valley of much better quality. In the extreme south rises the northern scarp of the Kaimurs.

Meja.—Chief place in an estate of the same name in the State of Udaipur, Rājputāna, situated in 25° 25′ N. and 74° 33′ E., about 80 miles north-east of Udaipur city, and 6 miles south-west of Māndal station on the Rājputāna-Mālwā Railway. Population (1901), 1,027. The estate is of recent creation and consists of 16 villages, held by a noble who has the title of Rāwat and belongs to the Chondāwat family of the Sesodia Rājputs. The income is about Rs. 25,600, and a tribute of Rs. 2,500 is paid to the Darbār.

Mekong.—One of the main rivers of Indo-China, rising in Tibet and flowing with a general south-easterly course into the China Sea in French Cochin-China. The greater portion of its channel lies in China, Siam, and the French possessions in Indo-China. For 50 or 100 miles between about 20° 30′ and 21° 30′ N. the river, however, borders on the Shan State of Kengtung, separating that State from French territory; and it may therefore be said to form a portion of the river systems of Burma. Its channel is impeded by rapids, and for navigation it is of no more value than the Salween. Its main tributaries in British territory are the Nam Lwi and the Nam Hkok.

Mekrān.—Division of Kalāt State, Baluchistān. *See* MAKRĀN.

Melghāt.—Northernmost *tāluk* of Berār, formerly part of Ellichpur District, but since August, 1905, incorporated in Amraotī District, lying between 21° 10′ and 21° 47′ N. and 76° 38′ and 77° 40′ E., with an area of 1,631 square miles. The population fell from 46,849 in 1891 to 36,670 in 1901, the decrease being due to the famine of 1899-1900, which led very many of the Korkūs to emigrate northwards. The density of the population, 22 persons per square mile, is lower than in any other *tāluk* of Berār. Villages, many of which are small collections of Korkū dwellings, number 330, and the *tāluk* contains no town. Its head-quarters are at the sanitarium of CHIKALDA.

The inhabitants are principally KORKŪS; and the *tāluk*, a very large proportion of which is state forest, lies entirely in the Gāwīlgarh hills, a branch of the Sātpurā range. The land assessment is based, not on acreage, but on ox-gangs, or the area which can be ploughed by a pair of bullocks. The demand for land revenue and cesses in 1903-4 was Rs. 44,000.

Melukote.—Sacred town in the Seringapatam *tāluk* of Mysore District, Mysore, situated in 12° 41′ N. and 76° 39′ E., on the Yadugiri hills, 16 miles north of French Rocks railway station. Population (1901), 3,129. It is the seat of the Srīvaishnava Yatirāja *math*, founded by the reformer Rāmānuja, who, fleeing from persecution by the Chola king, took up his residence here for twelve years at the beginning of the twelfth century. He converted the Hoysala king, Bitti Deva of Mysore, from the Jain faith, and received from him a grant of all the country north and south of the Cauvery, afterwards known as ASHTAGRĀMA. In the fourteenth century Melukote suffered at the hands of the Musalmāns on their destruction of Dorasamudra, the Hoysala capital. The king retired to Tondanūr, now TONNŪR, at the southern foot of the Yadugiri hills. The place was rebuilt about 1460 by the chief of Nāgamangala, but in 1771 was sacked by the Marāthās after their defeat of Haidar at Chinkurali. The principal temple, a large square building and very plain, is that of Cheluvapillerāva or Krishna. More striking is that of Narasimha, placed on the very summit of the rock. From the early part of the seventeenth century Melukote was under the special patronage of the Rājās of Mysore. The inhabitants are mostly Brāhmans, of whom 400 are attached to the great temple, some of them being men of learning. There are also numerous temple servants of Sūdra extraction, musicians, dancing-girls, and Sātānis. Some weavers and shopkeepers are the only persons who live by industry. Two classes of Holeyas or outcastes, called Tirukula and Jāmbavakula, have the privilege of entering the temple once a year to pay their devotions, in return for their people having helped Rāmānuja to recover the image of Krishna when it was carried off to Delhi by the Muhammadans. Cloths of good quality are made here, and fragrant fans of *khas-khas* grass. A fine white clay, said to have been discovered by Emberumānār or Rāmānuja, is used for making the *nāma* or sect-mark on the forehead, and is exported to distant places for that purpose, even to Benares. The municipality dates from 1881. The receipts and expenditure during the ten years ending 1901 averaged Rs. 1,400 and Rs. 1,600. In 1903-4 they were Rs. 1,600 and Rs. 1,400.

Melūr Tāluk.—*Tāluk* and subdivision in the east of Madura District, Madras, lying between 9° 52′ and 10° 30′ N. and 78° 8′ and 78° 29′ E., with an area of 485 square miles. The population is

1901 was 154,381, compared with 148,656 in 1891. It contains one town, MELŪR (population, 10,100), the head-quarters; and 98 villages. The demand for land revenue and cesses in 1903-4 amounted to Rs. 4,60,000. In the north are the irregular masses of the Alagar, Nattam, and Karandamalai hills. The more northern villages, known as the Arumāgānam, which are situated among these hills, are difficult of access owing to the lack of roads. The soil is chiefly red sand. One-half of the *tāluk* is supplied with water from the Periyār Project, and some of the best varieties of rice produced in the Presidency are grown in this part. The remaining portion is irrigated by the Pālār, the Tirumanimuttār, and the Uppār streams, which, however, are not perennial, and by numerous small tanks which these rivers supply or which are rain-fed. The *tāluk* has been greatly transformed and enriched by the Periyār water.

Melūr Town.—Head-quarters of the *tāluk* of the same name in Madura District, Madras, situated in 10° 2′ N. and 78° 20′ E., on the main road between Madura and Trichinopoly. It is a Union with a population (1901) of 10,100; and since the extension of irrigation in the neighbourhood by means of the Periyār Project, the place has risen in wealth and importance as an agricultural centre. The American Mission has a station here.

Memadpura.—Petty State in MAHĪ KĀNTHA, Bombay.

Memāri.—Village in the head-quarters subdivision of Burdwān District, Bengal, situated in 23° 10′ N. and 88° 7′ E. Population (1901), 1,674. Memāri is a station on the East Indian Railway and an important trade centre. Silk *sārīs* and *dhotīs* are manufactured.

Mengni.—Petty State in KĀTHIAWĀR, Bombay.

Mercāra Tāluk.—Central *tāluk* of Coorg, Southern India, lying between 11° 56′ and 12° 36′ N. and 75° 36′ and 75° 57′ E., with an area of 216 square miles. The population in 1901 was 28,620, compared with 34,088 in 1891, the decline being due to the falling off in the coffee industry and consequent depression in trade. The *tāluk* contains one town, MERCĀRA (population, 6,732), the head-quarters; and 56 villages. The Mercāra table-land, whose elevation is 3,809 feet above the sea at the fort, occupies the west centre. From it the Ghāt ranges extend westwards towards Bengunād and the Sampajī valley, northwards lies a range which includes Kotebetta (5,375 feet), on the east a range runs towards Fraserpet, and south-east a range which culminates in Nūrokkalbetta. The Cauvery runs along the southern boundary, receiving from this *tāluk* the Muttarmudi and the Chikkahole. The north is drained by the Hatti or Hārangi, which for some distance forms the boundary. Within the *tāluk* are thus comprised all the essential features of Coorg. The north and west are occupied by

valuable and extensive coffee plantations, and the soil generally is fertile and productive for both 'wet' and 'dry crops.'

Mercāra Town (properly *Madikeri*, 'clean town').—Chief town of Coorg, Southern India, situated in 12° 25′ N. and 75° 44′ E., on an elevated plateau, points on which are 3,961 feet above the sea in the south, 4,155 in the west, 4,267 in the north-east, and 4,345 in the south-east. It consists of the native town of Mahādevapet and the fort, which is 3,809 feet above the sea. Population (1901), 6,732 (4,496 Hindus, 1,635 Muhammadans, 559 Christians, and 42 others). For the reasons given in the article on the *tāluk*, the numbers have fallen from 8,383 in 1891. An efficient water-supply has been provided, chiefly from private contributions. In 1903–4 the municipal income was Rs. 18,000, including taxes on houses and lands (Rs. 6,200), professions and trades (Rs. 2,300), and grants and loans (Rs. 4,500). The expenditure amounted to Rs. 20,000, the chief items being hospitals and dispensaries (Rs. 5,300), conservancy (Rs. 3,000), and education (Rs. 1,700).

Mercāra was selected by Muddu Rājā on account of its central and inaccessible position as the site of his fort and capital, and thither in 1681 he moved the royal residence from Hāleri, a few miles to the north. The present fort, which is of stone, was built by Tipū Sultān, and named by him Jāfarābād. On the approach of the British force marching against Seringapatam under Abercromby in 1790, the fort was evacuated by Tipū's troops, and delivered over with all its guns and ammunition to the Rājā of Coorg. It surrendered to the British without opposition in 1834, and is still in pretty good preservation, but of little strategical value, being commanded by hills all round within short range of cannon. It consists of a rampart 8 feet thick, and from 15 to 20 feet high outside, with battlements 2 feet thick and 5 feet high. The fortress is an irregular hexagon, and nearly conforms to the shape of the hill-top, leaving enough space for a ditch all round, and on the north side for a glacis. There are bastions at the six angles, and the whole is built of strong masonry. The circuitous entrance is on the east, and guarded by three successive gates. Within the fort is the palace, erected of brick in 1812 by Linga Rājā. The ground plan is that of a Coorg house, with a superstructure in European fashion. It forms a large square of 200 feet, with an open space in the centre, and is two storeys high. In the fort also are the Commissioner's residence and the public offices. In the inner fort, to the southern front of the palace, is the English church, built on the site of a Vīrabhadra temple removed in 1855. In the opposite corner of the courtyard is (or was) the figure of an elephant, in masonry, life size. It is said that the Rājā used to stand on the balcony of the palace with a rifle and cause prisoners to run across

the yard while he fired at them, with the promise of their lives if they escaped to the elephant, which however seldom occurred.

The native town of Mahādevapet, so named after Vīra Rājendra's second Rānī, runs along a ridge which stretches northwards from the fort, being separated from it by a narrow rice valley. It consists of three streets, two of which are nearly parallel. At the farther end of the town, on a rising ground, are the picturesque tombs of the Coorg Rājās. A market is held in the *petta* every Friday. In a hollow to the east of the fort is the Omkāresvara temple, around which are the residences of the principal native officials. But the Coorgs in Mercāra seldom have their families with them; these remain on the farms. More to the north are the central school-buildings, erected on the site of the ruins of the palace built by Linga Rājā for the reception of European visitors. To the south of the fort are the parade ground and promenade, at the farther end of which is the Rājā's Seat, a public garden from which a fine panorama is obtained of Coorg scenery.

Mergui Archipelago.—A collection of islands in the Bay of Bengal, stretching along the coast of the Tenasserim Division of Lower Burma between, roughly, 9° and 13° N. The Archipelago numbers in all about 800 islands, which are almost uninhabited except by the Salons or sea-gipsies, who wander from fishery ground to fishery ground in their boats. The largest is King Island, one of the few that possess regular villages. The large island of Kisseraing (Kitthayi), though now a waste of jungle, contains traces of an old Siamese town, mentioned in the archives of Tenasserim. Others are Tavoy Island, off the south-west corner, on which are the most important of the bird's-nest caves; Ross and Elphinstone, the nearest pearling-ground to Mergui; Sellore, protecting the fisheries of Auckland Bay; Domel, between which and Kisseraing is the difficult channel of Celerity Passage; Bentinck, farther out, and the Great Western Torres, farther still to sea in 97° 30′ E.; Malcolm and Owen, off which are the richest pearling-grounds; Sullivan's, little known except to the Salons; and St. Luke's and St. Matthew's, forming, with Hastings Island, a fine natural harbour, and also frequented by Salons. Of the islands at the mouth of the Pakchan river and southwards, the outer ones generally are British and those near the coast Siamese.

Mergui District.—Southernmost District of Burma and of the Tenasserim Division, extending on the mainland from Myinmoletkat mountain (13° 28′ N.) on the border of Tavoy District in the north to the mouth of the Pakchan river (9° 58′ N.) and the Isthmus of Kra in the south, and including the islands of the Mergui Archipelago from Tavoy Island to the Aladdin Isles in 9° 38′ N. On the east it is conterminous with Siam, and at one point, in 99° 40′ E., the Gulf of Siam

is only 10 miles distant. On the west the islands stretch out as f
as 97° 30′ E. The total area is 9,798 square miles.

Physical aspects.

North of Mergui town the valley of the Great Tenasserim river separated from the sea by a mountain range, culminating in Myi moletkat, 6,800 feet high, on the northern borde Between this range and the coast is a fertile plai intersected by small streams running east and we and to a great extent cultivated. The rest of the District is of a ve different character. There are no mountain ranges of any importanc and such level lands as exist are mostly covered by the sea at high tid or, if inland, flooded during the rains. With the exception of th valleys of the two Tenasserim rivers and the Upper Pakchan, th part of the District is generally a network of low hills fringed wit mangrove swamps.

The principal rivers are the Great Tenasserim, rising far to the nort in Tavoy, and entering the District about 140 miles above Tenasseri village, where it doubles back on itself and flows into the sea, formin a delta round Mergui town; its tributary, the Little Tenasserim, whic joins it at Tenasserim village after a northerly course from the Sia border; the Lenya, to the south-west of the Little Tenasserim, an nearly parallel with it, but flowing direct into the sea south of Mergu after a bend to the north-west; and the Pakchan, rising in the sam neighbourhood as the Lenya, but flowing south to Victoria Poin The District is thus, with the exception of the Palaw township, wher a few streams run from east to west, a system of rivers flowing fro north to south or south to north, except where a bend is needed t enable them to reach the sea. The MERGUI ARCHIPELAGO, whic stretches down the entire length of the coast, numbers 804 island of every size, from King Island, with an area of 170 square miles, t mere rocks rising abruptly from the sea. Nearly all are forest-clad, an most are hilly, often fringed with mangrove swamps, but occasionall displaying a yellow beach of sand or pebble. With the exception o King Island, which is partly cultivated by Burmans and Karens, an some fishing villages, more or less deserted during the monsoon, o the shores of Kisseraing and Sellore, the islands are almost unin habited, but for the Salons or sea-gipsies who wander among them A remarkable feature of the coast scenery is the presence of limeston cliffs, towering sheer out of the water for several hundred feet, and forming caves which recall the interior of a Gothic cathedral, whil others enclose lakes accessible only at low tide through a tunnel in the rock. They are the home of the tiny swift that builds the edibl bird's-nest of commerce.

Coal, tin, gold, and other minerals are found in the District. The are referred to in detail in a later paragraph. The coals of Theinda

and Kawmapyin on the Great Tenasserim are found in association with shales, sandstones, and conglomerates, which form a Tertiary basin. The Moulmein group of beds constitute the greater portion of the sedimentary rocks. Under these is the Mergui group, a series of essentially pseudomorphic sedimentary beds, with imbedded fragments of felspar which have so far been noticed only near Mergui. Rocks of the gneissic series with granite, &c., also occur. It is from the disintegration of this granitic rock that the tin ores are derived.

The flora resembles generally that of the adjoining District of TAVOY. There is a good deal of swamp vegetation. Canes are abundant. The *thin* reed grows in the valley of the Little Tenasserim. The principal timber trees are referred to under the head of Forests below.

The District swarms with monkeys, especially the fisher-monkey (*Macacus cynomolgus*), which may be seen in great numbers on the banks of the Palaw river cracking cockle-shells by means of stones; and the white-handed gibbon (*Hylobates lar*), usually black but sometimes light brown, with whose cries the forests everywhere resound at sunrise. Elephants, tigers, *sāmbar*, barking-deer, and hog are plentiful, and rhinoceros and bison are also found. The Malay tapir, which is hardly known north of the Tavoy river, has been seen in Tenasserim. Game-birds are less plentiful than in the delta Districts. The Archipelago abounds with fish, prawns, and shrimps, especially in the muddy waters between Mergui and the mouth of the Lenya river. The clearer waters yield the pearl mollusc and other shell-fish of economic value. Whales are frequently seen among the islands, and have given its name to Whale Bay in the middle of the Archipelago.

The District is unusually healthy for a tropical country. Malaria is little known, even in the lowlands at the foot of hills, where its most deadly form is usually looked for. Situated on a peninsula between two great seas, with no high mountain range to keep off the winds from the Gulf of Siam, its climate is always mild and moist. The mean maximum temperature at Mergui town is highest in April (93°) and lowest in August (85°), and the mean minimum ranges from 68° in December to 75° in April and May.

The rainfall at Mergui town during the five years ending 1901 averaged 103 inches, and at Victoria Point about the same. A strip of the District, about 10 miles wide, from Bokpyin to Ross and Elphinstone Islands, was devastated on May 4, 1902, by a cyclone, which denuded the hills of forest and utterly destroyed any village that lay in its path. Fortunately the tract is thinly populated; but many fishing-boats were lost, and a part of the pearling fleet anchored near Ross Island was destroyed.

Mergui has for most of its known history been a Siamese province,

with its capital at Tenasserim. The latter may possibly be identical with Tun Sun, mentioned in the Chinese annals of the Liang dynasty (A.D. 502–56) as the terminus of a trade route on the western side of the Malay Peninsula. It is certain that for hundreds of years Tenasserim was the gateway of the most direct route to the Far East, commodities being brought to it by sea from India and the Persian Gulf to meet those carried overland from Siam and China. From early in the fifteenth century, when the port was visited by Nicolò de' Conti the Venetian, till the massacre of 1687 described below, the place is constantly mentioned by travellers and merchants as a great port. Abdur Razzāk of Samarkand includes the inhabitants of Tenasserim among the people to be seen at Ormuz in 1442. Early in the sixteenth century it is described in the voyages of Tristan d'Acunha as the first mart for spices in India, and Duarte Barbosa says its ships were to be seen at Cape Guardafui. Large vessels were then apparently able to reach Tenasserim, though it is 44 miles up the river; and goods were carried thence overland to Ayuthia and the Siamese Gulf. Mergui, however, seems always to have been its seaport, for it is mentioned by Cesare de' Federici in 1568.

History.

Mergui has ever been a battle-ground of the rival kingdoms of Burma and Siam. Cesare said in 1568, 'it of right belongeth to the kingdom of Sion,' but whenever there was a strong Burmese king it became a Burmese province. The earliest record is an inscription recently found near the Shinkodaw pagoda, about 10 miles from Mergui. It is dated 631 B.E. (A.D. 1269), and records a gift to the pagoda by Nga Pon, the Royal Usurer of Tayokpyemin ('the king who fled from the Chinese'), who reigned at Pagan from 1248 to 1285.

Siam was repeatedly invaded by the Burmans under Bayin Naung, first as general and then as king, between 1548 and 1569, and in the last year the capital, Ayuthia, was sacked. It is during this period that Cesare de' Federici refers to Tenasserim as being in the kingdom of Pegu. In 1587 Bayin Naung's son, the Yuva Rājā, attempted to imitate the exploits of his father; but his army was destroyed, and another expedition ended in disaster in 1593. Soon after this the Burmese kingdom was broken up, and Siam enjoyed peace, so far as the Burmans were concerned, for 150 years, until the rise of Alaungpayā. In 1683 the king of Siam appointed Richard Burneby, an ex-servant of the East India Company, as governor of Mergui, with Samuel White as *Shāhbandar*, or Port Officer, of Mergui and Tenasserim. A number of English traders were attracted to the place, and there were also French, Dutch, and Portuguese settlements. But the East India Company at that time claimed the monopoly of all trade by Englishmen with the East, and the Council at Madras determined to

eject the interlopers. At the same time King James II was growing anxious at the establishment of French influence at the Siamese capital; and in 1687 the *Curtana* arrived outside Mergui with letters declaring war on Siam pending payment of compensation for injuries done to the Company's trade, and requiring Burneby and White to send all the English in Mergui on board the frigate. A truce of sixty days was at the same time allowed. During the truce the Siamese, under White's direction, strengthened their defences and staked the river. An attempt by the commander of the *Curtana* to remove the stakes resulted in a general massacre of the Englishmen in Mergui, only three escaping out of sixty. After this the French became supreme, and fortified themselves in the town; but in 1688, as the result of a palace revolution, they were attacked and driven out. For the next seventy years Siam was torn by incessant civil war, and a further blow was inflicted on the trade of Mergui by the presence of pirates of all nationalities. By 1757 Alaungpayā had become all-powerful in Burma, and had founded the city of Rangoon. The usual invasion of Siam followed at the end of 1759 by way of Mergui and Tenasserim, which were occupied without resistance. Ayuthia was reached, but the siege was abandoned owing to the illness of Alaungpayā, who died on the march back to Burma. In 1775, however, another army was sent by his son Sinbyushin under the Burmese general Mahā Thihathura, and after a siege of fifteen months the city was utterly destroyed. The Siamese founded a new capital at Bangkok, and Tavoy and Mergui remained in possession of the Burmans.

In 1786 Siam was invaded by Bodawpayā, but without success, and in 1792 the people of Tavoy rebelled and delivered up the town to the Siamese. It was soon retaken, and Mergui, which had been successfully held by the Burmese governor, was relieved. Another rebellion was crushed in 1808. Soon after this, friction arose between the British and Burmese Governments. War was declared in 1824, which resulted in the annexation of the Arakan and Tenasserim provinces in 1826. In October, 1824, the East India Company's cruiser *Mercury*, with Lieutenant-Colonel Miles and 370 men of the 89th Regiment, appeared before Mergui, and the fort was carried with a loss of six men killed and two officers and twenty-two men wounded. In 1825 a Siamese force ravaged the country about Tenasserim, but was driven off; and the present Mergui subdivision, almost depopulated by incessant wars and rebellions, at last enjoyed a long period of tranquillity.

The principal pagodas are the Legyunsimi at Mergui, built in 1785 over a smaller one erected soon after Alaungpayā's invasion; and the Zedawun pagoda, said to date from 1208, situated on a hill 10 miles up the Tenasserim river and commanding a fine view of the valley.

The population of Mergui District has increased steadily from 47,192 in 1872 to 56,559 in 1881, 73,748 in 1891, and 88,744 in 1901.

Population.

The principal statistics of area and population in 1901 are given below:—

Township.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Mergui . .	1,879	1	152	43,070	23	+ 33	10,890
Palaw . .	785	...	115	22,442	29	+ 15	2,728
Tenasserim .	4,033	...	114	10,712	3	+ 28	1,405
Bokpyin .	2,103	...	63	7,255	3	+ 26	1,856
Maliwun .	989	...	41	5,265	5	− 32	854
District total	9,789	1	485	88,744	9	+ 20	17,733

There is little immigration, and the mining coolies brought from China do not as a rule settle in the country. A large proportion of the population in the extreme south is made up, however, of temporary immigrants, and the fluctuations in this source of supply account for the diminution that took place in the sparsely populated Maliwun township between 1891 and 1901. Except along the coast, the inhabitants are very scattered. Burmese is almost universally spoken in the Mergui township, where even the people who admit, in other parts of the District, kinship with pure Siamese call themselves Burmans. They speak a dialect understood with difficulty by an ordinary Burman, with some Siamese words and idioms, the most remarkable of the latter being the inversion of the parts of compound verbs. The hard consonants are retained as in Arakanese, but the *r* and *h* and final consonants practically disappear. In Palaw an even less intelligible dialect of Burmese is spoken by two-thirds of the population, the other third speaking Karen. In Tenasserim, out of every 100 persons 43 talk Burmese, 40 Siamese, and 16 Karen. Farther south Burmese tends to disappear entirely, Siamese, Malay, and Chinese being the languages most heard. According to religion, about 87 per cent. of the people are Buddhists. There are a few Animists and Hindus, but most of the non-Buddhist population are Musalmāns, who numbered about 7,000 in 1901.

There were nearly 57,000 Burmans in 1901, about 2,000 Chinese, and nearly 9,000 Siamese. A considerable proportion of the population in the town and the mines is Baba or half-Chinese, the men retaining the pigtail, but talking Burmese or Siamese, and the women wearing the dress of their mothers. Of the Musalmāns, between 2,000 and 3,000 are Malays and the rest nearly all Zairbādis.

Living in boats among the islands is a wild people of obscure origin

called by the Burmese Salons, by the Malays Orang Basin, by the Siamese Chaunam ('waterfolk'), and by themselves Mawken ('drowned in the sea'). The Salons are expert divers and swimmers, and the supply of green snails and *bêche-de-mer* is obtained entirely through them. Their language has hitherto generally been regarded as akin to Malay, but according to a recent view it is an entirely independent form of speech, most nearly related to the Cham of Cambodia.

Two-thirds of the total population of the District are agricultural. Outside Mergui the Burmans are husbandmen or fishermen, the Siamese mostly agriculturists with a few miners, the Chinese usually miners, and the Karens all agriculturists.

The Christian population in 1901 numbered 2,215. Of these, 2,135 were natives, mostly Karens in the Palaw and Mergui townships, where the American Baptist Union started work in 1837.

Agriculture.

There is little of special interest to note in connexion with the agricultural methods obtaining in the District. The use of the plough is practically unknown. In some parts a harrow with a single tooth is used; but the Siamese of the Pakchan and other parts do nothing but tread out the soil with buffaloes, and this practice is followed by the Burmans on low-lying lands. Fruit trees are planted in pits filled with burnt earth, which is also, with cattle-dung, used as manure after the young tree has been planted out.

The area permanently cultivated is small. About one-third of it lies in the Palaw township, rather more than a half in the basin of the Tenasserim river, and the rest in the valley of the Pakchan.

The following table shows the main agricultural statistics for 1903-4, in square miles:—

Township.	Total area.	Cultivated.	Forests.
Mergui	1,879	64	
Palaw	785	37	
Tenasserim	4,033	22	5,600
Bokpyin	2,103	9	
Maliwun	989	7	
Total	9,789	139	5,600

In the area under rice, which comprises about three-fourths of the whole, the soil is generally rich, except in the Tenasserim township, where it is inclined to be sandy. About 7 per cent. of the cultivated area is planted with the *dani* palm (*Nipa*), which is at its best in this District. It is grown on mud-banks in tidal creeks, which are covered with water, more or less salt, at high tide. The leaves of this palm are used for the roofs and walls of houses, and its juice for making toddy and jaggery sugar. About 18 per cent. of the cropped land consists

of fruit orchards, usually on undulating land or the lower slopes of hills. The soil is particularly well suited for areca palms and durians. There are 12,640 rice holdings and 14,200 assessed orchards, but to the latter must be added a very large number of gardens of less than a quarter of an acre, which are not assessed. Of the area under rice, nearly half is in the Mergui township and one-fourth in Palaw. More than 6,000 acres, of which 4,800 are in the Mergui township, are under the *dani* palm. Nearly 2,000 acres in Palaw, and about the same area in Mergui, are planted with areca palms. Durians cover a similar area in the Mergui township, and coco-nuts 1,600 acres in the District as a whole.

Very little is done to improve the methods of husbandry, but considerable progress has been made in bringing fresh land under cultivation. The cultivated area was 62 square miles in 1881, 81 in 1891, 134 in 1901, and 139 in 1903-4. The area under rice has more than doubled, and that of orchards nearly trebled, during the past twenty years. The increase has been most marked in Palaw.

Buffaloes are practically the only cattle known outside Mergui town. They are bred locally and are of a good quality.

Fisheries.

The number of persons engaged in or dependent upon fishing is between 10,000 and 11,000, or about one-eighth of the population. All the fisheries are in the sea. The principal implements are the *sanda* (the hauling net) and the *gawa*. The first is a lofty rectangular structure of wooden piles, often supporting a small house in one corner, and provided with long wings of saplings, which sometimes extend for half a mile. An immense net is lowered from it by means of pulleys, and into this fish or prawns are swept by the tide. The larger fish are dried on bamboo platforms; the prawns are boiled and similarly dried, after which the shells are removed by being beaten in a bag, and go to feed the pigs or to manure the land of the Chinese in the Straits. Long rows of *sandas* stand in the fair season across the vast shallows of Whale and Auckland Bays, and as many as 120 may be seen at once. The *gawa* is a triangular net forming a kind of scoop, which a man pushes before him in shallow water, towing a canoe at the same time. It is used only for collecting shrimps, which are made into a paste and exported largely to Rangoon, where this paste is regarded as the finest kind of *ngapi*.

Next to sea-fishing proper, the principal maritime industry is pearling. Before 1893 a certain number of pearls were obtained by the Salons, who are capable of diving to a depth of 5 fathoms or more without apparatus. The richness of the beds was little suspected, however, until a Singapore company obtained a lease in that year of part of the Archipelago, and started operations with diving gear and Filipino, Malay, and Japanese divers. This attracted a number of pearlers from the Australian fisheries, to whom they sublet their rights. Meantime

Chinese pump-owners began work in other parts of the Archipelago, and in 1898 a Chinese syndicate obtained a lease of the entire area. The white pearlers continued work for a time under this syndicate; but the supply of shell, on which, rather than the pearls, they depended for their profits, had greatly diminished, and by 1900 all had left. Their place was taken by Chinese, Zairbādis, and Burmans of Mergui, who were attracted by the gambling nature of the industry, were content with smaller average profits, and above all were better able to check their divers. It is impossible for the pump-owner to prevent peculation unless he, or some one he can trust, travels in each diving-boat. Ostensibly the shells are opened only in the owner's presence, but it is a very easy matter for the diver to test one for pearls and reclose it.

Since 1900 licences have been issued at a fixed fee of Rs. 400 per pump, the licensee working where he pleases; and this system has proved more satisfactory than the old one of auctioned leases. The exports of shell declined from 414 tons in the year ending March, 1895, to 71 tons in 1905; but the price of both shell and pearls had meanwhile risen, and in 1905 there were 77 pumps at work. The finest pearl yet found in the beds, so far as is known, is a drop pearl weighing 34 carats and sold at Singapore for $16,000 in 1902, but a smaller pearl fetched Rs. 30,500 at Mergui in 1904. The shell is usually found in waters from 18 to 23 fathoms deep. The best grounds are in the neighbourhood of Owen and Malcolm Islands, about 100 miles south of Mergui; but diving is also carried on near Ross and Elphinstone, 30 miles west of the town. Mr. Jardine, an Australian pearler, in a report prepared for Government in 1894, pronounced the shells to be very fine specimens of the true mother-of-pearl shell of commerce (*Meleagrina margaritifera*), weighing on the average 600 to the ton. In the month ending January 16, 1894, eighteen boats brought up 20,000 shells weighing 34½ tons, and containing pearls of an estimated value of £2,600.

Other maritime products of the District are green snails (*Turbo marmoratus*), the shells of which are exported for conversion into imitation mother-of-pearl; trochus, a conical shell of smaller size; and sea-slugs or *bêche-de-mer*, which, with the contents of the snail-shells, are exported to the Straits for the delectation of the Chinese palate.

Among maritime products, since they are found in caves far out to sea, may be included edible birds'-nests, of which 20 viss (73 lb.) of the finest quality, valued in Penang at Rs. 4,000, were collected in a single day in April, 1903, from one of the rocky islets near Tavoy Island. The nests, which are milk-white and shaped like the half of a diminutive basin glued to the rock, are, it is believed, made with the saliva of a small species of swift (*Collocalia francica*), which sleeps in

the caves but spends the day, when not actually at work, high up in the sky. The nests are to be found only in the most inaccessible corners of the caves, at a height sometimes of several hundred feet. Three collections are made during the fair season, lasting respectively four, seven, and three days. The birds rebuild their nests in the intervals, and only the last made are available for rearing their young. The best quality is obtained from the second collection.

Forests.

Practically the whole District, with the exception of 139 square miles of cultivation and perhaps a similar extent of old *taungya* clearings, is under dense forests; and of this a large part, approaching perhaps 1,000 square miles, is mangrove. The area treated as forest by the department is about 5,600 square miles in extent, but only 330 square miles of this total are 'reserved.' The forests are not generally valuable, and teak is unknown; but the lofty *kanyin*-tree (*Dipterocarpus laevis*) yields an oil largely used in the manufacture of torches; the wood of the *thingan* (*Hopea odorata*) is, owing to its elasticity, unequalled for boats; and *kyathnan* or *pinle-on* (*Carapa moluccensis*), *anan* (*Fagraea fragrans*), *hmanthin* (*Curcuma Roscoeana*), *kanazo* (*Bassia longifolia*), and *kokko* (*Albizzia Lebbek*) are all useful timbers. *Pyingado* (*Xylia dolabriformis*) is plentiful in the extreme north. *Kalamet* (*Santalum sp.*), found on a branch of the Little Tenasserim on the border of Siam, is prized for its fragrance. The precious scented wood-aloes, or eagle-wood, the diseased heart-wood of the *akyaw* tree (*Aquilaria Agallocha*), is still an article of commerce, though not so plentiful as formerly; and *sappan* wood, once the most famous product of the District, exists in the Tenasserim township, but is not now worked. *Pwenyet*, the resinous nest of the *Trigona laeviceps*, or dammer bee, makes valuable caulking for boats when mixed with earth-oil. Rubber exists in a wild state in some parts of the District; and the *Hevea braziliensis*, introduced by the Government from Kew Gardens in 1878, is yielding good results in an experimental plantation near Mergui. The outside of the stem of the *Phrynium dichotomum*, called by the Burmese *thin*, is exported in large quantities to Danubyu to be made into the mats for which that place is famous. The vast mangrove forests are being utilized, their bark yielding a kind of tannin which is known in Europe as cutch, though inferior to the genuine article, the produce of the *Acacia Catechu*.

Minerals.

The existence of tin in Mergui District came to the notice of the Government of India soon after the annexation of Tenasserim. Favourable reports were made in 1841–3 by Colonel Tremenheere, and in 1855 by Dr. Oldham, but without practical results. In 1873 the mining rights in the Maliwun township were leased to a Rangoon firm, who introduced European

machinery, but retired in 1877 after incurring heavy loss. This is explained partly by the want of good expert advice and partly by the employment of Indian coolies, who were unable to stand the hard work and exposure. Various officers have since then been deputed to examine and report on the mines. The backward condition of Maliwun, so far as Chinese immigration is concerned, is perhaps due to the unsuitability of our laws, which the Government is reluctant to suspend in so comparatively small an area for the sake of an industry which has as yet attained no great importance. In 1895 the Jelebu Mining Company started operations, but used only Chinese methods for the extraction of the tin, and retired in 1898. In 1901 a concession of 4 square miles was granted, but cancelled in 1903, as the concessionaires had not found sufficient capital to work the lode.

Tin ore may be found: (1) in the original lode; (2) in the masses of decomposed rock on the sides of hills; (3) deposited beneath a layer of silt on low-lying lands, to which it has been carried by the action of water; and (4) in the beds of streams. Of these four classes, the first can be worked only with the aid of explosives and expensive machinery, which are now being introduced by a European firm. The second class may be worked on a large scale, by sluicing away the side of a hill with water forced through pipes. The Chinese are described as picking out the eyes of the hills with picks and crowbars, thus obtaining a rich out-turn with comparatively little labour, but spoiling the ground for those who come after them. Their usual method, however, is *lampan* working, in which a small stream is diverted to the piece of land to be worked, and the overburden or overlying earth is removed by the force of the water assisted by cross channels cut in the shape of a gridiron. In the third class the overburden has to be removed by manual labour before the ore can be extracted. Here again the ground is apt to be spoilt by the practice of fossicking, in which, instead of the overburden being removed continuously, pits about 6 feet wide are dug in it and allowed to fall in after the wash dirt, or tin-bearing mass, has been removed from the bottom. No objection can be urged against the practice of panning, or washing in the beds of streams, the last of the four classes. This has been compared to gleaning, and is carried on chiefly by Malay and Siamese women, who are said to earn sometimes a dollar a day in this fashion.

The ore, after being cleaned by the action of running water, is smelted at or near the mines in clay furnaces, and exported to Penang or Rangoon in blocks weighing about a hundredweight. The labour is mainly Chinese, but some of the small outlying mines are worked by Siamese. The monthly wage for unattached Chinese coolies is

a year, all found. The importation is done through the Chinese Protectorate at Penang, the coolies being bound by written contract to work for periods extending from one to three years. The annual out-turn of tin for some years past has been about 60 tons, paying a royalty of rather over Rs. 3,500.

The District yields about 500 tons of salt yearly, produced at Palaw in the Palaw township. More than fifty families are employed in the brine-boiling business. The water of a tidal creek is diverted into fields of impervious clay, in which it is confined by means of small ridges. The fields are of different heights, and the water remains a day or two in each till the evaporation caused by the heat of the sun has converted it into brine. It is then run into a tank, from which it is eventually ladled into an iron pan, 4 feet square, placed over a furnace. The salt is scraped from the bottom of the pan. Duty is levied at 8 annas a maund of 82 lb. The industry was first introduced in 1896.

On the Great Tenasserim river, between 12° 20′ and 12° 30′ N., is a bed of coal estimated to contain not less than a million tons. It has been calculated that the outside cost of placing the coal at Mergui would be Rs. 7–12 a ton. The coal is said to be superior in quality to most Indian coals; but no serious attempt has yet been made to work the field, though two prospecting licences have recently been issued.

Gold exists in many places, but not, so far as is known, in paying quantities. A practically inexhaustible supply of iron, though not of very good quality, is reported on the island of Kalagyun, about 8 miles west of Mergui by sea. On Maingy Island Mr. Mark Fryar in 1872 discovered the existence of a valuable lode of lead (galena) containing 11 oz. of silver per ton, but most of it below the sea. An outcrop inland, however, has recently been found, and some of the ore has been sent to England for examination. Graphite exists on the almost unexplored island of Kisseraing, and manganese at places on the Great Tenasserim. The Marble Isles, between Kisseraing and Domel, are composed of marble of a coarse quality, suitable for building.

The richness of Mergui in natural products and the sparseness of its population account for the almost total absence of arts or manufactures of any kind. A notable instance of the lack of manufacturing enterprise is the fact that *thin*, the fine reed of which the famous mats of Danubyu are made, is largely exported to Central Burma, and comes back into the District in the form of mats.

Trade and communications.

The trade of the District is carried on entirely by sea. Nearly all of it passes through the port of MERGUI. Other ports are Palaw and Victoria Point, but their trade is insignificant.

The British India Steam Navigation Company runs a weekly steamer from Rangoon, calling at the mouth of the Tavoy river, and a fort-

nightly coasting steamer from Moulmein. The trade with Penang and intervening ports to the south is very inadequately served by a single boat of 194 tons, belonging to a Chinese firm in Penang. This steamer is the sole means of communication with Victoria Point, the head-quarters of the southern subdivision. A weekly service with Tenasserim is kept up by means of small native boats, and with Palaw by the police boat and the Moulmein coasting steamer, which also runs on to Bokpyin. Road communications hardly exist, mainly owing to the abundance of waterways. Roads from Mergui to Palaw, and from Bokpyin to the newly opened mines at Yanngwa, are in course of construction; and a survey has been made from Victoria Point to the Maliwun tin mines, which have already 4 miles of metalled road.

Administration.

The District has two subdivisions, one of which, Mergui, is divided into the townships of MERGUI, PALAW, TENASSERIM, and BOKPYIN, each under a township officer. The other subdivision, called Victoria Point, consists of a single township, MALIWUN, which has no separate township officer. Below the township officers are 128 village headmen. These are taking the place of the old circle *thugyis*, of whom, however, five still remain. The District forms a portion of the Amherst Public Works division (head-quarters, Moulmein) and of the South Tenasserim Forest division (head-quarters, Tavoy). The Deputy-Commissioner, in addition to his judicial and revenue duties, discharges those of Collector of Customs and Port Officer.

For judicial purposes the District forms part of the Tenasserim civil and sessions division. The Deputy-Commissioner is District Magistrate and District Judge. The Mergui township court is presided over by a judge, who sits for fifteen days in the month at Tavoy and for fifteen at Mergui, but the subdivisional and the other township courts are presided over by the executive officers. Outside Mergui there is not much litigation and but little crime; but assaults of a serious nature are common, and theft is prevalent in the town, where there is a large and turbulent population of Zairbādis. Opium smuggling on a large scale was carried on in former years by junks from Penang, but has been almost entirely suppressed by the excise staff appointed in 1902. Cattle-theft is practically unknown. The Deputy-Commissioner is Political Officer for Renong and other Siamese States; and, owing to the cordial co-operation of the Siamese authorities, the gangs of border robbers who infested the Pakchan river have long since disappeared.

When the British annexed the District the revenue was very small, as might be expected in a country where the original population had been, to a great extent, exterminated within the previous sixty years. In 1854–5, the earliest year for which there are reliable data, the land

revenue was Rs. 26,000. The following table shows, in thousands of rupees, the growth under the main heads of revenue since 1880–1 :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue .	83	98	1,58	1,66
Fisheries .	12	22	70	90
Total revenue .	2,01	2,77	5,28	5,16

The District has not been settled. A cadastral survey of 577 square miles was made between 1891 and 1894, but there are still about 10,000 acres of permanent cultivation not regularly surveyed. A topographical survey of 3,211 square miles, on the scale of one inch to the mile, embracing most of the tin-mining areas, was carried out between 1889 and 1893. Orchards in the Mergui township pay Rs. 3 per acre; rice land, Rs. 2 or Rs. 1–12; and vegetables, tobacco, &c., R. 1. In the thinly populated tracts the rates are less by about half.

The District cess fund had an income in 1903–4 of Rs. 18,700, which is devoted to education and the maintenance of village headmen, roads, and bungalows. MERGUI TOWN is the only municipality.

The civil police force consists of 3 inspectors, 6 head constables, 19 sergeants, and 180 men, under the District Superintendent. Siamese are usually employed in Bokpyin and Maliwun. There are also 100 military police, employed in guarding treasure and escort duty. A police station has been established at every township head-quarters, with additional posts at Palauk, Lenya, and Marang. Besides the training dépôt at Mergui town, a police school has been established at Victoria Point for Siamese constables. Mergui town has a jail, with accommodation for 74 prisoners. The average number of inmates is about 40. Long-term prisoners are removed to other jails to serve out their sentences.

The standard of education is comparatively low for Burma. In 1901 only 20 per cent. (33·3 males and 5·4 females) were returned as able to read and write. In 1904 there were 7 secondary, 45 primary, and 59 elementary (private) schools, with 3,775 pupils (including 542 girls) on their rolls. The number of pupils has risen to this figure from 1,985 in 1891 and 2,379 in 1901. The total expenditure on education in 1903–4 was Rs. 13,800, of which Provincial funds provided Rs. 4,200; municipal fund, Rs. 3,600; fees, Rs. 3,600; and the District cess fund, Rs. 2,400.

The District contains 2 hospitals, with accommodation for 34 in-patients. In 1903 the number of cases treated was 12,846, of whom 512 were in-patients, and 383 operations were performed. The total cost was Rs. 6,000, chiefly met from Local funds.

Vaccination is compulsory only in Mergui town. In 1903-4 the number of persons successfully vaccinated was 4,388, representing 49 per 1,000 of population.

[Captain J. Butler, *Mergui District Gazetteer* (1884).]

Mergui Subdivision.—Subdivision of Mergui District, Lower Burma, consisting of the MERGUI, PALAW, TENASSERIM, and BOKPYIN townships.

Mergui Township.—Township of Mergui District, Lower Burma, comprising the most important islands of the Archipelago and a small piece of the mainland in the neighbourhood of Mergui. It extends from 11° 25′ to 12° 47′ N. and from 97° 30′ to 98° 58′ E., with an area of 1,879 square miles. The eastern islands, lying at the mouths of the Tenasserim and Lenya rivers, are in muddy waters teeming with fish. They support a large fishing population, but only King Island is cultivated. The population was 32,448 in 1891, and 43,070 in 1901, when the township contained 152 villages and hamlets, besides MERGUI TOWN (population, 11,987), the head-quarters. Outside the town 90 per cent. of the people speak Burmese, the rest being Karens, Chinese, or Salons. Of the Burmans, nearly half are fishermen. The cultivated area in 1903-4 was 64 square miles, of which about 41 square miles were under rice, and the rest orchards and palm groves. The land revenue in the same year amounted to Rs. 94,400.

Mergui Town.—Head-quarters of the District of the same name in Lower Burma, situated in 12° 26′ N. and 98° 36′ E., on the Tenasserim coast, just outside the principal mouth of the Tenasserim river, and protected by the little hill-island of Pataw, which helps to form a good natural harbour, and farther out by a ring of islands to the south and west, including King Island, the largest of the Mergui Archipelago. The principal Government buildings are on a ridge parallel to the coast, rising abruptly from the sea, and affording a view of the harbour backed by the pagoda-crowned hills of Pataw and Patet on the islands opposite, and the distant heights of King Island beyond. The inner town is densely packed, the houses being huddled together without much regard for sanitation, especially on the foreshore, where they are built over the mud. In the suburbs the buildings are scattered among orchards, but roads are lacking everywhere.

The population of the town fell from 9,737 in 1872 to 8,633 in 1881, but rose again to 10,137 in 1891 and 11,987 in 1901. The Census, however, is taken at a time when the fishermen and their families, who number several thousands, are living in the islands. During the monsoon they move into the town. The population is very mixed. To a European resident most families seem to have either Chinese or Indian blood in them; but the census figures show only 1,400 Muhammadans and 700 Hindus in the town, while the total number of persons

in the entire District, including the miners, returning themselves as Chinese, is only 2,100. No doubt most of these are in the town, many Chinese miners being imported for the monsoon only. Practically no persons called themselves Siamese or Karens, but there must be a very large admixture of these races in the population. No Malays reside in the town.

The Burmese name of Mergui is written Mrit, but pronounced Beik. The Siamese write and pronounce the name Marit. The origin of the name used by Europeans (and also by Maláys and natives of India) is quite unknown. It is by no means certain that it is connected with the Siamese name, for no plausible explanation of the second syllable has ever been given.

Mergui was formed into a municipality in 1887. The receipts during the ten years ending 1901 averaged Rs. 27,600. In 1903–4 the income was Rs. 34,700, of which Rs. 14,700 was derived from a tax on houses and lands, Rs. 9,200 from market dues, and Rs. 6,800 from lighting and conservancy rates. The chief items of expenditure were conservancy (Rs. 5,800), lighting (Rs. 4,300), hospital (Rs. 3,900), roads (Rs. 3,700), markets (Rs. 3,000), and education (Rs. 3,000). There are two bazars, one of brick on the shore, and the other of wood and thatch, behind the ridge which runs along the centre of the town. The hospital, school, and municipal office are situated on this ridge, near the courthouse and police station.

The Port fund has an income of Rs. 3,500 a year. Passengers and cargo from foreign ports are landed at the main wharf, which was built of stone in 1900, at a cost of Rs. 38,000. Cargo from Rangoon and coast ports usually goes to a smaller wharf in the south of the town, and there are in addition numerous private jetties. The total value of the exports in 1903–4 was 16 lakhs, of which 11 lakhs went to Indian ports and 5 lakhs to the Straits and England. The imports were valued at 14 lakhs, of which 11½ lakhs came from Indian ports.

The principal exports are fish-paste and salted fish, sent mostly to Rangoon and Moulmein, and mother-of-pearl shell, sent to the United Kingdom; cotton piece-goods and husked rice are the two principal imports, coming mainly from Rangoon.

Merkāra.—*Tāluk* and town in Coorg. *See* MERCĀRA.

Merta.—Head-quarters of a district of the same name in the State of Jodhpur, Rājputāna, situated in 26° 39′ N. and 74° 2′ E., about 9 miles south-east of Merta Road station on the Jodhpur-Bīkaner Railway. Population (1901), 4,361. The town was founded by Dūda, the fourth son of Rao Jodha, about 1488, and was added to by Rao Māldeo, who about 1540 built the wall (now somewhat dilapidated) and the fort called after him Mālkot. In 1562 Akbar took the place after an obstinate and sanguinary defence, but about twenty years later

he restored it to the Jodhpur chief, Rājā Udai Singh. Merta was at one time a great trade centre, and there are still many fine carved stone houses; it possesses a post office, an Anglo-vernacular school, a hospital with accommodation for six in-patients, and a handsome mosque built by Akbar. The principal manufactures are *khas-khas* fans and screens, ivory work, country soap, and earthenware toys. The country around Merta has been the scene of many a hard-fought battle, and is covered with stone pillars erected to the memory of the dead. Here in 1790 the Marāthās under De Boigne inflicted a severe defeat on the Rāthors; and on the dam of a tank called Dangolai is the tomb of a French captain of infantry, who fell on that occasion.

Mertiparvat (or Mertigudda).—Mountain peak, 5,451 feet high, in the south-west of Kadūr District, Mysore, situated in 13° 18′ N. and 75° 23′ E. To the north it presents a majestic conical aspect. Towards the south-west it is connected with two lower heights, and is so surrounded on all sides with high hills that its true elevation does not appear except at a distance. The top is bare, but the sides are clothed with fine forests, and where the ground admits, terraced for paddy-fields. It is also called the Kalasa hill, being near to that place.

Merwāra.—British District in Rājputāna, lying between 25° 24′ and 26° 11′ N. and 73° 45′ and 74° 29′ E., with an area of 641 square miles and a population (1901) of 109,459. The local name of the District is Magra, which signifies 'hills.'

Beyond the fact that between 1725 and 1816 several unsuccessful attempts were made by Rājputs and Marāthās to subdue the country, the history of Merwāra is a blank up to 1818, when the British appeared on the scene. Captain Broughton, who accompanied the Mahārājā Sindhia in his march from Agra to Ajmer, 1809–10, describes it in his *Letters from a Mahratta Camp* as

'the district of *Mugruolee*, celebrated for its hilly fastnesses and impenetrable jungles. It forms the boundary between the countries of Mārwār or Jodhpur and Mewār or Udaipur; but the daring race of robbers who inhabit it acknowledge the authority of neither. They subsist by levying contributions on the inhabitants of the plains around, when they are not checked by the presence of a still greater evil than themselves, a large army of Marāthās.'

The District was then an impenetrable jungle, inhabited by outlaws and fugitives from surrounding States. The population, known under the general name of Mers, originally comprised a very heterogeneous mixture of castes: Chāndela Gūjars, Bhāti Rājputs, Brāhmans, and Mīnās. It is said that Visaldev, the Chauhān king of Ajmer, subdued the inhabitants, and made them drawers of water in the streets of Ajmer. Mr. Wilder, the first British Superintendent of Ajmer, entered into agreements with certain villages binding their inhabitants to abstain

from plunder. These pledges were disregarded; and in 1819 a force was dispatched from Nasīrābād which destroyed the offending villages, and established police posts at Shāmgarh, Lūlwa, and Jhāk. In November, 1820, the police officers were murdered, and the country had to be thoroughly subjugated. An expedition started again from Nasīrābād, and accomplished its purpose by the end of January, 1821, the campaign having lasted three months. It now became necessary to make arrangements for the administration of this turbulent tract, which was made up of three portions: British Merwāra, Mewār-Merwāra, and Mārwār-Merwāra. Captain Tod, the author of *Rajasthan*, undertook the administration of the portion belonging to Mewār. The Mārwār portion was handed over to the Thākurs of adjoining villages, and the British portion to the Thākurs of Masūda and Kharwa, who were held responsible for its management, under the general superintendence of Mr. Wilder. This arrangement was a complete failure. The District was infested with murderous gangs, criminals from one portion were sheltered in another, and the condition of Merwāra became worse than it had been prior to 1818. In 1823 and 1824 the British authorities entered into engagements with Udaipur and Jodhpur, and took over the management of the whole tract. From time to time these treaties were renewed, and the whole District is now, to all intents and purposes, British territory. The first officer appointed to hold charge of the newly acquired tract was Captain Hall, who in 1836 was succeeded by Colonel Dixon. In 1842 Colonel Dixon became Superintendent of Ajmer also, and since then the two Districts have been administratively conjoined. To Hall and Dixon belongs the credit of reclaiming the inhabitants of Merwāra from predatory habits to a life of honest industry. Colonel Dixon died at Beāwar in 1857, having lived in Ajmer-Merwāra for thirty-seven years. A system of government, which may well be called paternal, was established by these officers in Merwāra, and was eminently suited to the needs of the people. Civil and criminal administration was carried on by a *panchāyat* or assembly of the elders of the village. If two-thirds of the assembly were agreed, the question was settled. Prior to 1851, when a regular settlement was effected by Colonel Dixon, the revenue was settled by an estimate of the crop, one-third of the produce being the share of the Government, except in special cases. Police and revenue duties were combined. The people themselves were made responsible for protecting travellers and trade; and to this day certain villages provide men to guard some of the passes leading out of Merwāra, receiving in return a small remuneration from travellers. In 1822 a corps, designated the Merwāra Local Battalion, was raised, which transformed a number of wild mountaineers into brave and disciplined soldiers, and exercised a beneficial effect on the pacification

of the country. In 1858 a second battalion, known as the Mhair Regiment, was raised for service in the Mutiny. In 1861 the two battalions were amalgamated into one, 1,000 strong, called the Mhair Military Police Battalion. This corps was in 1871 retransferred, with a strength of 712 men, to the regular military establishment. It served in the Afghān War of 1878–80, and is now the 44th Merwāra Infantry, with head-quarters at Ajmer. Colonel Dixon's administration was remarkable for the building of a large number of irrigation tanks. The good effect of these works was enormous. Cultivation increased, and the old villages, which had been perched on inaccessible peaks, were deserted for places in the valleys where agricultural operations could be carried on. It thus came about that the inhabitants of Merwāra, who had proclivities very similar to those of the Highland caterans, and who lived by plundering in Mewār, Mārwār, Kishangarh, and Ajmer, were led into the paths of civilization. As the area under cultivation and the produce of the lands increased, it became apparent that something must be done to attract *mahājans* (traders) to Merwāra, to enable the people to reap the benefits of their industry. Colonel Dixon, therefore, founded in 1835 the town of Nayānagar, better known as BEĀWAR, which is the commercial and administrative capital of the District. By these measures a great social change was wrought in Merwāra, and Colonel Dixon had the satisfaction of seeing round him a people whose wants had been supplied, whose grievances had been redressed, and who are described as being 'most prosperous and highly favoured.' The people of Merwāra have not forgotten their benefactor. They erected a monument to his memory in the town which he built.

For further information see AJMER-MERWĀRA.

Mesāna.—*Tāluka* and town in Kadī *prānt*, Baroda State. *See* MEHSĀNA.

Mettancheri.—Town in Cochin State, Madras. *See* MATTĀNCHERI.

Mettupālaiyam.—Village in the District and *tāluk* of Coimbatore, Madras, situated in 11° 19′ N. and 76° 58′ E., on the banks of the Bhavāni at the foot of the Nīlgiri Hills. Population (1901), 10,223. Being the terminus of the Nīlgiri branch of the Madras Railway and the starting-point of the *ghāt* road and rack railway which lead up those hills, it is a place of some importance and a deputy-*tahsīldār* is stationed here. Owing to its situation, it is notoriously hot and unhealthy. A tannery owned by a native firm employs 60 hands, and turns out annually nearly 85 tons of leather, valued at over Rs. 50,000. There are more than a hundred dolmens in the fields round the place.

Mevali.—Petty State in REWĀ KĀNTHA, Bombay.

Mevāsa.—Petty State in KĀTHIĀWĀR, Bombay.

Mewār.—Another name for the UDAIPUR STATE in Rājputāna.

The word Mewār is a corrupted form of the Sanskrit *Med Pāt*, meaning the country of the Meds or Meos, a tribe now numerous in Alwar, Bharatpur, Gurgaon, &c. *See* MEWĀT.

Mewār (or **Udaipur**) **Residency.**—One of the eight Political Charges into which Rājputāna is divided. Situated in the south of the Agency, it consists[1] of the four States of UDAIPUR, BĀNSWĀRA, DŪNGARPUR, and PARTĀBGARH, and lies between 23° 3′ and 25° 58′ N. and 73° 1′ and 75° 49′ E. It is bounded on the north by the British District of Ajmer-Merwāra and the Shāhpura chiefship; on the north-east by Jaipur and Būndi; on the east it touches Kotah and an outlying district of Tonk, but the greater part of this boundary is formed by Central India States; to the south are several States belonging to either Central India or the Bombay Presidency; while on the west the Arāvalli Hills separate it from Sirohi and Jodhpur. The head-quarters of the Resident are at Udaipur and those of his Assistant ordinarily at Dūngarpur. The population at the three enumerations was: (1881) 1,879,214, (1891) 2,310,024, and (1901) 1,336,283. The figures for the two earlier years are, however, unreliable, as, except in Partābgarh, the Bhīls who form the majority of the population in the south were not counted, a rough guess only being made of their numbers. But, though the census figures for 1881 and 1891 may have been too high, the loss of population during the last decade was certainly very great, due to the famine of 1899–1900 and the severe epidemic of fever which immediately followed it. In regard to area and population, the Residency stands third among the eight political divisions of Rājputāna, while the density is nearly 79 persons per square mile, as compared with 76 for the whole Agency. Of the total population in 1901, Hindus formed nearly 69 per cent., Animists (mostly Bhīls) 21, and Jains about 6 per cent. The following table gives details regarding the four States making up the Residency:—

State.	Area in square miles.	Population, 1901.	Normal land revenue (*khālsa*), in thousands of rupees.
Udaipur . . .	12,691	1,018,805	13,60
Bānswāra . . .	1,946	165,350	85
Dūngarpur . . .	1,447	100,103	1,00
Partābgarh . . .	886	52,025	1,00
Total	16,970	1,336,283	16,45

There are altogether 8,359 villages and 17 towns. Of the latter, only two have more than 10,000 inhabitants: namely, UDAIPUR CITY (45,976) and BHĪLWĀRA (10,346).

[1] It has recently been decided to establish a new Agency, comprising the States of Bānswāra, Dūngarpur, and Partābgarh.

Mewāt.—An ill-defined tract lying south of Delhi, and including part of the British Districts of Muttra and Gurgaon, and most of Alwar and a little of Bharatpur State. It takes its name from the Meos, who appear to have been originally the same as the Mīnās of Rājputāna, but say that they have not intermarried with these since the time of Akbar. The origin of the name Meo is disputed, some deriving it from Mewāt, which is said to be the Sanskrit *mīnā-vatī*, 'rich in fish,' while the Meos themselves derive it from *maheo*, a word used in driving cattle. Mīnā is said to come from Amīna Meo or 'pure' Meo, a term applied to those who did not become Musalmāns. The Hindu Meos and Mīnās claim to be Rājputs, but are not so regarded by other Hindus, and it is certain that outsiders have often been admitted in the past. Their tribal constitution varies in different places. The Muhammadan Meos call themselves Mewātīs. In 1901 there were 10,546 Meos and Mīnās in the United Provinces, chiefly in the Districts of Meerut (916), Bulandshahr (4,745), Agra (906), Bijnor (1,263), Budaun (884), and Morādābād (1,070); and 51,028 Mewātīs, chiefly in the Meerut (22,576), Agra (7,316), and Rohilkhand (16,129) Divisions. The large number in Rohilkhand, which was never part of Mewāt, is explained by a migration owing to famine in Mewāt in 1761–2. The Meos of Rājputāna numbered 168,596, or nearly 2 per cent. of the total population. Practically all are Muhammadans, and they are found in thirteen out of eighteen States. In Alwar there were 113,142, or over 13 per cent. of the population; and in Bharatpur 51,546, or 8 per cent. The Khānzāda subdivision is represented by 9,317 members, most of whom are in Alwar. The Mewātīs have preserved many Hindu customs, such as exogamous rules and Hindu festivals.

According to tradition, the Meos first crossed the Jumna in the period of anarchy which succeeded the invasion by Mahmūd of Ghazni in 1018–9. The great Rājput clans of Bulandshahr and Etāwah state that they dispossessed the Meos at the order of Prithwī Rāj of Delhi towards the end of the twelfth century. Throughout the period of Muhammadan rule the Meos were the Ishmaelites of their own country and of the Upper Doab, though harried again and again by the kings of Delhi, from Nāsir-ud-dīn Mahmūd (1259) to Bābar (1527). During the troubled times of Tīmūr's invasion (1398) Bahādur Nāhar, who founded the subdivision of Mewātīs called Khānzādas, members of which were, for many years, rulers of Mewāt, was one of the most powerful chiefs in this part of India. Under Akbar the tract was divided between the *sarkārs* of Alwar and Tijāra in the *Sūbah* of Delhi. The rule of the Mewātīs was subsequently challenged by the Jāts, who had already risen to importance before the death of Aurangzeb in 1707, and consolidated their power in Southern Mewāt in the first half of the eighteenth century; and from this time the history of

Mewāt merges in that of Alwar and Bharatpur. The Meos and Mewātīs, however, retained their character for turbulence; and towards the end of the eighteenth century travelling in the Upper and Central Doāb was unsafe owing to armed bands of Mewātī horsemen. They gave much trouble to Lord Lake's forces in the Marāthā War of 1803, while in the Mutiny they and the Gūjars were conspicuous for their readiness to take advantage of disorder.

[W. Crooke, *Tribes and Castes of the North-Western Provinces and Oudh*, vol. iii, p. 485 et seq., where full authorities are quoted.]

Mhasvād.—Town in the Mān *tāluka* of Sātāra District, Bombay, situated in 17° 38′ N. and 74° 48′ E., 51 miles east of Sātāra town, on the road to Pandharpur. Population (1901), 7,014. Six miles south-east of the town, at Rājewādi in Aundh State, is the great Mhasvād irrigation lake, covering an area of 6 square miles. An ancient temple of Nāth stands near the western entrance of the town. Its courtyard, in which Purānas are read daily by a Brahmān, contains an inscription and a black stone elephant, which is greatly venerated. A large fair is held in December, at which cattle and blankets are sold. The municipality, constituted in 1857, had an income during the decade ending 1901 averaging Rs. 4,700. In 1903-4 the income was Rs. 5,300. The town contains a dispensary.

Mhow (*Mau*).—British cantonment in the Indore State, Central India, situated in 22° 33′ N. and 75° 46′ E., on the southern boundary of the Mālwā plateau, and on the Ajmer-Khandwā branch of the Rājputāna-Mālwā Railway. Population (1901), 36,039. It stands on a somewhat narrow ridge of trap rock, with an average elevation of about 1,800 feet, the highest point near the barracks of the British infantry being 1,919 feet above sea-level. The ridge falls away abruptly on the south and east, but slopes away gradually on the west, forming a broad plain used as a brigade parade ground. Mhow was founded by Sir John Malcolm in 1818, in accordance with the conditions laid down in the seventh article of the Treaty of Mandasor (*see* INDORE STATE), and remained his head-quarters till 1821 while he held general political and military charge in Central India. In 1857 the garrison at Mhow consisted of a regiment of native infantry, the wing of a regiment of native cavalry, and a battery of field artillery, manned by British gunners but driven by natives. An outbreak took place on the evening of July 1, but order was rapidly restored, and only a few lives were lost, the Europeans taking refuge within the fort. The cantonment is now the head-quarters of the Mhow division in the Western Command. The garrison consists of one regiment of British cavalry, two batteries of horse artillery, one regiment of British infantry, one ammunition column, and two regiments of Native infantry.

The population in 1872 was 17,640; in 1881 it was 15,896, the

decrease being due to the withdrawal of the labourers employed in constructing the Rājputāna-Mālwā Railway in 1875; in 1891, 28,773; and in 1901, 28,457. Mhow has no export trade properly speaking, but the imports are considerable. The total receipts of the cantonment fund in 1903–4 amounted to 1·4 lakhs, including receipts from octroi (Rs. 50,000), *chaukīdārī* tax (Rs. 22,000), grants-in-aid (Rs. 31,000), and excise (Rs. 18,000). The chief heads of expenditure were medical and conservancy (Rs. 31,000 each), police (Rs. 19,000), public works (Rs. 17,000), general administration and collection of revenue (Rs. 10,000), water-supply (Rs. 3,000), and education (Rs. 1,400). The sanitary condition of the cantonment has been much improved of late years, a regular water-supply having been completed in 1888. The Cantonment Magistrate exercises powers as a District Judge and Judge of the Small Cause Court, his Assistant being a magistrate of the second class and a judge of the Small Cause Court for petty suits. Appeals from the Cantonment Magistrate lie to the First Assistant Agent to the Governor-General, who is Sessions Judge and first Civil Appellate Court, the Agent to the Governor-General being the High Court. The police, who belong to the Central India Agency force, number 107 men under a European Inspector. Three schools in the cantonment—the Pārsī school with 400 boys and 60 girls, the railway school, and the convent school—receive grants-in-aid from cantonment funds. Besides the military hospitals, a civil hospital is maintained by local charity and a grant from cantonment funds.

Miāni (1).—Port in Las Bela State, Baluchistān. *See* SONMIĀNI.

Miāni ('Fishing village') (2).—Village in the Hyderābād *tāluka* of Hyderābād District, Sind, Bombay, 6 miles north of Hyderābād city. Population (1901), 962. It was here that Sir Charles Napier, on February 17, 1843, with a force of 2,800 men and 12 guns, encountered a Baloch army numbering 22,000, strongly posted on the banks of the Fuleli. The enemy were totally routed, 5,000 men being killed and wounded, and the whole of their ammunition, standards, and camp taken, with considerable stores and some treasure. A monument marks the scene of the battle, and on the eastern side of the pillar are inscribed the names of the officers, and the number of rank and file, who fell. The village contains three schools, one of which is for girls.

Miāni (3).—Town in the Dasūya *tahsīl* of Hoshiārpur District, Punjab, situated in 31° 43′ N. and 75° 34′ E., on the Beās river. Population (1901), 6,118. It is of no commercial importance. The municipality was created in 1874. The income during the ten years ending 1902–3 averaged Rs. 1,700, and the expenditure Rs. 1,600. In 1903–4 the income was Rs. 1,800, chiefly derived from octroi; and the expenditure was Rs. 2,300. It maintains a Government dispensary.

Miāni (4).—Town in the Bhera *tahsīl* of Shāhpur District, Punjab situated in 32° 34′ N. and 73° 5′ E., on the left bank of the Jhelum opposite Pind Dādan Khan. Population (1901), 7,220. It was formerly the dépôt to which all the salt from the Khewra mines was brought for dispatch down country, but its trade has been ruined by the extension of the North-Western Railway across the Jhelum to Khewra. The original town, called Shamsābād, having been swept away by a flood Asaf Khān, father-in-law of Shāh Jahān, founded the present one. It was plundered by Nūr-ud-dīn, general of Ahmad Shāh, in 1754, taken in 1783 and restored in 1787 by Mahān Singh, father of Ranjīt Singh who reopened the salt mart. The municipality was created in 1867. The income during the ten years ending 1902–3 averaged Rs. 8,000 and the expenditure Rs. 7,600. In 1903–4 the income amounted to Rs. 10,000, chiefly from octroi; and the expenditure was Rs. 8,400. The town possesses an Anglo-vernacular high school, maintained by the municipality, and a Government dispensary.

Miān Mīr.—Former name of LAHORE CANTONMENT, Punjab.

Miānwāli District.—North-westernmost District of the Multān Division, Punjab, lying between 30° 36′ and 33° 14′ N. and 70° 46′ and 72° 0′ E., with an area of 7,816 square miles. Of this vast area about three-fourths are east of the river Indus, comprising the *tahsīls* of Miānwāli, Bhakkar, and Leiah, which lie in that order from north to south along the river. On the east, the District is bounded by the Districts of Attock, Shāhpur, and Jhang, while on the south it adjoins Muzaffargarh. The cis-Indus portion of the District is bounded on the west, for the greater part of its length, by the Indus, which divides it from Dera Ghāzi Khān and the North-West Frontier District of Dera Ismail Khān. To the west of that river lies its remaining portion, the *tahsīl* of Isa Khel, bounded to the west and north by the Bannu and Kohāt Districts of the North-West Frontier Province. This consists mainly of a semicircle of level plain enclosed between the Chichāli and Maidāni hills and the Indus. North of Kālābāgh, and between the termination of the Khattak hills and the Indus, lies the outlying tract of Bhangi Khel, a rugged area broken up by rough lines of hills, irregular but with a main direction from north to south. Vishorgun (4,001 feet above sea-level) is the highest point. The Isa Khel *tahsīl* is the only tract with a Pathān population which the Punjab has retained west of the Indus.

Physical aspects.

The cis-Indus territory has a maximum length from north to south of 180 miles, and attains a width of 70 miles in Bhakkar, its central *tahsīl*, which stretches eastwards almost to the Jhelum river. Thus the three cis-Indus *tahsīls* of Miānwāli comprise the greater part of the Sind-Sāgar Doāb, the country which lies between the Indus and the

Jhelum. It includes two distinct tracts. Along the Indus lies a strip of riverain land, locally called the Kachhi, which is flooded by that river, and is of great fertility, though the action of the floods is often capricious, fields and hamlets being sometimes swept away in a few hours. About half the area is cultivated, the rest being covered with tall *Saccharum* grass and tamarisk scrub. The other tract is the vast barren upland known as the THAL, a desolate waste of shifting sandhills on a level surface of hard clay. On this upland brushwood grows sparsely, and the only cultivation is that round the scattered wells sunk amid the sandhills. A great part of this tract will be commanded by the projected Indus Canal. The monotony is unbroken by hills or rivers; but its north-eastern corner runs up into the western flank of the Salt Range and the south-western slopes of the Sakesar hill, on which stand the summer head-quarters of the officials.

The Indus issues from the hills at Kālābāgh in a narrow channel, but rapidly spreads till above Isa Khel its width from bank to bank is nearly 13 miles. The whole of the Kachhi is intersected with straggling branches of the Indus, chief of which is the Pūzal.

The District is of considerable geological interest, for it includes both cis-Indus and trans-Indus portions of the SALT RANGE. The chief points of interest in the series as exposed here are the disappearance of the older palaeozoic beds, and the development of Jurassic and Cretaceous rocks. The salt marl and rock-salt still form the lowest member of the series; but as a rule all overlying formations, found in the eastern part of the range between the salt marl and the boulder-bed, are absent. The Jurassic beds are well seen in the Chichāli pass, where they contain ammonites and belemnites, and are overlain by rocks with Lower Cretaceous fossils. Coal of fair quality occurs in the Lower Tertiary beds in the Isa Khel *tahsīl*, and salt is quarried at Kālābāgh [1].

The flora is in part that of the Western Punjab, but there is a strong admixture of West Asian and even Mediterranean forms. Trees are scarce, except where planted; but the *tāli* (*Dalbergia Sissoo*) is frequent along the Indus, and the Mesopotamian aspen (*Populus euphratica*) is reported from the south of the District. The Salt Range at Kālābāgh has a flora of its own, corresponding to that of like situations on the ranges east of the Indus. The Thal sandhills are an extension of the Great Indian Desert, and their flora is largely that of North-western Rājputāna.

An occasional leopard on the Salt Range and a few wolves are the only representatives of the fiercer beasts. *Uriāl* are to be found on

[1] See *Manual of Geology of India, passim*; Wynne, 'Geology of the Salt Range,' *Memoirs, Geological Survey of India*, vol. xiv, and 'Trans-Indus Extensions of the Salt Range,' ibid., vol. xvii, pt. ii; C. S. Middlemiss, 'Geology of the Salt Range, *Records, Geological Survey of India*, vol. xxi, v, pt. i.

the Salt Range and in the Bhangi Khel hills, where *mārkhor* are also sometimes seen. 'Ravine deer' (Indian gazelle) are found in numbers in the Thal and along the foot of the hills. Wild hog are met with in a few islands in the south.

The greater part of the District is situated in the Thal, and has a fiercely torrid and long hot season, with extreme cold in the winter months. At Sakesar in the Salt Range the elevation is sufficient to make punkahs a luxury only, but the heat is considerable until the rains break. The District is on the whole healthy, but the neighbourhood of the Indus is malarious. Goitre is not uncommon near Kālābāgh, and guinea-worm is prevalent in the Miānwāli and Isa Khel *tahsīls*. The annual rainfall is slight, varying from 11½ inches at Miānwāli town to 7 at Leiah.

History.

Nothing is known of the early history. The remains at KĀFIRKOT in Dera Ismail Khān and MĀRI in this District appear to testify to the existence in the north of a Hindu civilization possessed of considerable resources and architectural skill. The only other archaeological remains of any antiquity are some statues of Grecian type excavated at Rokhri, two erections near Nammal in shape like sentry-boxes and supposed to be dolmens, and several massive tombs of dressed stone in the Salt Range. There are no remains in the Thal earlier than the fourteenth century, and there is every reason to suppose that this area was previously an uninhabited desert. The country appears to have been colonized in the beginning of the fifteenth century by an immigration of Jats from the south, followed by the Baloch, who came in large bands under recognized leaders and took possession of the country as a military caste and overlords of the Jat cultivators, founding the towns of KAROR, BHAKKAR, and LEIAH. At the beginning of the seventeenth century we find the Jaskani Baloch ruling from the Indus to the Chenāb, and from Bhakkar to Leiah, with their capital at MANKERĀ. In the north the earliest inhabitants were the Awāns, who were driven back to the Salt Range by the Niāzai immigration in the sixteenth century. The Gakhars seem to have exercised an overlordship in the Miānwāli *tahsīl* as feudatories of the Mughal empire until 1748, when they were expelled by a Durrāni army. The rest of the District was incorporated in the Durrāni kingdom in 1756, and towards the end of the century became the province ruled over by Nawāb Muhammad Khān Sadozai, whose successor annexed Isa Khel in 1818. The cis-Indus portion was seized by the Sikhs in 1822, after the fall of MANKERĀ, and Isa Khel in 1836. On the outbreak of the second Sikh War a force of local levies was raised by Sir H. Edwardes at Leiah, which took part in the siege of Multān. The territories now comprised in Miānwāli were annexed in 1849. The cis-Indus portion of the present District, together with the

Sanāwan (or Kot Adu) *tahsīl* of Muzaffargarh, formed the Leiah District, and Isa Khel formed part of Dera Ismail Khān. Sanāwan was transferred to Muzaffargarh in 1859; and in 1861 Leiah District was abolished, the Bhakkar and Leiah *tahsīls* going to Dera Ismail Khān, and Miānwāli and Isa Khel forming part of the new District of Bannu. In 1901 the present District of Miānwāli was constituted, being the original Leiah District without Sanāwan and with Isa Khel. During the Mutiny the District was generally quiet; a detachment of irregular cavalry mutinied at Miānwāli, but the rising was quickly suppressed.

Population.

The population of the area now included in the District at the last three enumerations was: (1881) 365,621, (1891) 400,477, and (1901) 424,588, dwelling in 5 towns and 426 villages. It has increased by 6·1 per cent. during the last decade, the increase being greatest in the Leiah *tahsīl*, and least in Isa Khel. The District is divided into the four *tahsīls* of MIĀNWĀLI, ISA KHEL, BHAKKAR, and LEIAH, the head-quarters of each being at the place from which it is named. The towns are the municipalities of ISA KHEL, KĀLĀBĀGH, BHAKKAR, LEIAH, KAROR, and MIĀNWĀLI[1].

The following table gives the chief statistics of population in 1901:—

Tahsīl.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Miānwāli	1,478	...	69	111,883	75·7	+ 7·7	3,564
Isa Khel	678	2	43	64,224	94·7	+ 0·5	2,227
Bhakkar	3,212	1	196	125,803	39·2	+ 5·5	5,589
Leiah	2,433	2	118	122,678	50·4	+ 8·1	4,345
District total	7,816	5	426	424,588	54·3	+ 6·1	15,725

NOTE.—The figures for the areas of *tahsīls* are taken from revenue returns. The total District area is that given in the *Census Report*.

Muhammadans number 371,674, or over 87 per cent. of the total; Hindus, 50,202; and Sikhs, 2,633. Pashtū is spoken by some of the Pathān inhabitants of the Isa Khel *tahsīl*. Elsewhere various dialects of Western Punjābi are used.

The most numerous tribe is that of the agricultural Jats, who number 138,000, or 32 per cent. of the total population. Next to the Jats come the Pathāns (47,000), Baloch (27,000), Awāns (23,000), and Rājputs (6,000). But one commercial money-lending caste, the Aroras (42,000), is of numerical importance, the number of Khattrīs being only 2,000. Saiyids number 10,000. Of the artisan classes, the Julāhās (weavers, 13,000), Mochīs (shoemakers and leather-workers, 10,000), Tarkhāns (carpenters, 10,000), and Kumhārs (potters, 7,000) are the

[1] Miānwāli has been created a municipality since the Census of 1901.

most important; and of the menials, the Māchhis (fishermen, bakers, and water-carriers, 8,000), Chhīmbās and Dhobis (washermen, 8,000), Chūhrās and Kutānas (sweepers, 7,000), and Nais (barbers, 7,000). Kaneras, a caste which is found only in two other Districts, but is strongest here, number 2,000. Their original occupation was plaiting mats from grass and leaves, making string, and generally working in grass and reeds; but they have now taken to weaving generally, and even cultivate land. Of the total population, 57 per cent. are supported directly by agriculture. The District contained only 16 native Christians in 1901.

Agriculture.

The semicircle of plain on the west bank of the Indus enclosed between the river and the hills is level and open, has a good soil, and where irrigated by hill streams produces excellent crops. In the stony hills of the Bhangi Khel tract, on the other hand, a crop of the coarsest grain can be raised only in favourable seasons. Cultivation in the Kachhi depends entirely on inundation from the Indus, and the westerly trend of the river necessitates increased artificial irrigation by means of water-cuts and dams. The soil of the Thal is light and sandy, and cultivation is impossible without the aid of well-irrigation.

The area for which details are available from the revenue records of 1903–4 is 7,707 square miles, as shown below:—

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Miānwāli . .	1,478	432	5	614
Isa Khel . .	678	170	30	182
Bhakkar . .	3,134	301	47	2,705
Leiah . . .	2,417	259	132	2,000
Total	7,707	1,162	214	5,501

The chief crop of the spring harvest is wheat, which occupied 341 square miles in 1903–4. Barley and gram occupied 45 and 119 square miles respectively. Spiked millet (*bājra*) is the principal staple of the autumn harvest (203 square miles). Pulses occupied 87 square miles, and great millet (*jowār*) and oilseeds 45 square miles each. Little cotton, no rice, and practically no sugar-cane are grown.

The area cultivated has increased by 47 per cent. since the settlement of 1878, and tends to rise, owing to the extension of irrigation from wells and cuts from the hill streams or the Indus. Nothing has been done to improve the quality of the crops grown. Advances for the construction of wells and dams are readily taken from Government, about Rs. 29,000 having been advanced during the three years ending 1903–4.

The population of the Thal is largely pastoral; and cattle, sheep,

and goats are bred in large and increasing numbers. The local breed of cattle is, however, not of large size, and for the severe work of well-irrigation bullocks are generally imported from the south. Sheep-breeding is the principal means of livelihood of the inhabitants of the southern Thal; the sheep are of the ordinary thin-tailed breed. Camels are also bred in the Thal in large numbers. Buffaloes are found in all villages of the Kachhi. The people possess a good many horses, and the District board maintains one pony and three donkey stallions. A small cattle market is held weekly at Isa Khel.

Of the total cultivated area in 1903-4, 214 square miles, or 18 per cent., were classed as irrigated. Of this area, 185 square miles were irrigated from wells, and 29 from canals, and in addition 444 square miles, or 40 per cent., are subject to inundation from the Indus. The District possesses 7,310 masonry wells, besides 993 unbricked wells, water-lifts, and lever wells. Nearly the whole of the Kachhi is intersected by branches of the Indus; and in the higher portions dams are thrown across these streams and a few small canals excavated, but for the most part the people trust to inundation and percolation. The Kot Sultān Canal, which belongs to the MUZAFFARGARH INUNDATION CANALS, takes off from the Indus in the extreme south of the District; but with this exception the channels irrigating from the Indus are all private. Canal-irrigation in the Isa Khel *tahsīl* consists of cuts from the hill streams, one channel being under the management of the Deputy-Commissioner. Well-irrigation is the great feature of agriculture in the Thal. In the north-east the spring-level is so deep that wells are used only for watering cattle, but in the west and south they supply a good deal of cultivation. In certain parts level strips are found free from sandhills, and these are full of wells. In the two southern *tahsīls* the Kachhi is dependent on the overflow from the Indus, and considerable improvements in the management of its irrigation have been made in recent years, the westerly trend of the river necessitating more and more attention to this subject. It has been proposed to irrigate the greater part of the Thal by a perennial canal taking off from the Indus at Kālābāgh.

The forest lands comprise 1,235 square miles of 'unclassed' forest and Government waste under the control of the Deputy-Commissioner. In the Miānwāli and Isa Khel *tahsīls* these consist chiefly of groves of *shīsham* (*Dalbergia Sissoo*), while in the Thal they are patches of waste land leased for grazing. The forest revenue in 1903-4 was Rs. 28,000.

Minerals.

Rock-salt occurs at many places in the Salt Range and in the Maidāni range across the Indus. It is, however, worked only along the right bank of the river near KĀLĀBĀGH, where the salt stands out in the form of solid cliffs and is quarried on the surface. Alum, which is abundant throughout

the whole Salt Range, was formerly manufactured at Kālābāgh and Kotki (at the mouth of the Chichāli pass), the process being almost identical with that in Europe; but the industry has almost died out, owing to competition with other sources of cheaper supply. The shale from which alum was extracted was dug from shafts in the hill-side, sometimes of considerable depth. Coal or lignite of the oolitic period occurs at Jaba (cis-Indus), at Kālābāgh, Chopri, Chasmiān, and Sultān Khel (trans-Indus), and crops out in many other parts of the Salt Range. The largest outcrop is in the hills between Kālābāgh and the Chichāli pass in Isa Khel. It is found in lumps of various sizes among dark bituminous shales, not in beds, but in detached masses, which appear to be compressed and fossilized trunks of trees. The occurrence of these masses is altogether uncertain and irregular, so that nothing like a systematic working or shaft-cutting would be remunerative. The coal itself is hard and light, very black, but marked with brown streaks, and often encloses nests of half-decomposed wood resembling peat. It is not so easily inflammable as good coal; it burns quickly, without coking, to a light-coloured ash, and emits a large amount of smoky yellow flame with but little heat. A seam of coal of some value was discovered in 1903 near Malla Khel.

Rock oil or petroleum is found at Jaba in Masan (cis-Indus), near Kundal in the Khisor range, and in lesser quantities elsewhere in the hills of Isa Khel and Miānwāli. The Jaba reservoir was tapped scientifically about twenty years ago, and the oil drawn up sent to Rāwalpindi for lighting purposes; but the experiment was not remunerative. It is used for treating itch on camels and sheep, and also to light the Kālābāgh mines when men are at work in the tunnels excavating shale for the alum manufactory. The hill at the foot of which the springs lie is said to contain sulphur. Gold is found in minute quantities, mixed with the sand of the Indus, and is extracted by a laborious process of washing; but the yield is very small. Saltpetre is made from the earth of old village sites, and limestone and building stone are found.

Trade and communications.

Iron vessels and instruments are manufactured at Kālābāgh, and striped cotton cloth (*sūsī*) is made there in considerable quantities. A particularly excellent form of cotton check (*khes*) is made at Leiah. The weaving of baskets and other articles from the dwarf-palm employs a fair number of workers. Water-mills for grinding corn are worked in large numbers on the hill streams of Isa Khel.

The chief exports are salt, alum, iron vessels, *sūsī*, coal, articles made from the dwarf-palm, wheat and other grain, oilseeds, wool, and hides. The principal imports are iron, cotton piece-goods and thread, silk,

sugar, rice, potatoes, and timber. Exports go chiefly by rail and river to Multān and Karāchi. The chief centres of trade are Miānwāli, Kālābāgh, Isa Khel, Bhakkar, Leiah, and Karor.

The line of the North-Western Railway running from Multān to Rāwalpindi passes through the District, with a short branch to Māri opposite Kālābāgh, and is joined at Kundiān by the Sind-Sāgar branch from Lāla-Mūsa. There are 2 miles of metalled road under the Public Works department, and 200 miles of unmetalled roads maintained by the District board. The principal road runs parallel to the railway through Miānwāli, Bhakkar, and Leiah. There is no wheeled traffic, camels, mules, and donkeys being the means of conveyance. A great deal of traffic is carried on the Indus to Multān and Sukkur. The Indus is crossed opposite Dera Ismail Khān by a bridge of boats in the cold season, replaced by a steam ferry in the hot season, and by thirteen ordinary ferries. Inflated skins are largely used by the natives for crossing the river.

Famine.

The District has never suffered seriously from famine. The Kachhi and a large proportion of Isa Khel are rendered secure by irrigation or floods, while the scattered cultivation in the Thal is entirely dependent on well-irrigation. In the famine year of 1899–1900 the area of crops matured exceeded 70 per cent. of the normal area.

Administration.

The District is divided for purposes of administration into the four *tahsīls* of MIĀNWĀLI, ISA KHEL, BHAKKAR, and LEIAH, each under a *tahsīldār* and a *naib-tahsīldār*. The two last form the Bhakkar subdivision, under the charge of an Assistant Commissioner. The Deputy-Commissioner is aided by three Assistant or Extra-Assistant Commissioners, one of whom is in charge of the District treasury. For the prevention of the illicit extraction of salt, a preventive establishment supervised by a European officer is located at selected points among the hills, from which all exposed salt can be seen.

The Deputy-Commissioner as District Magistrate is responsible for criminal justice. The District Judge is in charge of civil judicial work, and both officers are under the supervision of the Divisional and Sessions Judge of the Shāhpur Civil Division. There are three Munsifs: one sits at head-quarters, one at Bhakkar, and one at Karor. The Frontier Crimes Regulation is in force throughout the District. The Isa Khel *tahsīl* is subject to inroads from trans-border outlaws and their confederates in Kohāt and Bannu. Cattle-stealing is the principal crime. Besides the facilities which the great Thal desert affords for transporting cattle into other Districts, the high jungle along the bank of the Indus makes a most effective hiding-place, especially in the flood season. Crime in the Thal also is very hard

to detect, owing to the great distances between police stations. Professional trackers are largely employed, and occasionally accomplish marvellous feats of long-distance tracking.

The fiscal conditions which obtain in the north are very different from those of the southern *tahsīls*, and even the two northern *tahsīls* have widely different histories. Miānwāli appears to have paid the large sum of 1¼ lakhs under Sikh rule. Lump assessments were made on annexation and in 1850, until in 1853 the Deputy-Commissioner of Leiah made a summary settlement of all the country west and south of the Salt Range, including the modern *tahsīls* of Miānwāli, Leiah, and Bhakkar. Leiah and Bhakkar had been summarily settled once before, and a careful measurement of all the cultivation was made. The demand for the three *tahsīls* was more than 3½ lakhs. Various other summary settlements were made in these *tahsīls*, but the Leiah District was broken up in 1861.

Isa Khel became subject to the Durrānis on the downfall of the Mughal empire, and paid revenue to them, sometimes without, but more often after, coercion. In 1836 the Sikhs established themselves here. The annual amount they realized is not known, but after annexation a quarter of the estimated value of the crops was collected for four years. In 1853 John Nicholson made a summary settlement, based on these collections, imposing a severe assessment which lasted for five years. In 1857 another and more lenient summary assessment was made, which remained in force for eighteen years.

The regular settlement of Bannu District, made in 1871–9, treated the *tahsīls* of Miānwāli and Isa Khel very lightly. A fluctuating assessment was generally levied in the riverain tracts, Rs. 1–4 per acre being charged on all land sown in any year, except land newly broken up, which paid 12 annas. These *tahsīls* came under revision of settlement in 1903, and an increase of Rs. 72,000, or 39 per cent., on the old revenue of 1·9 lakhs is expected.

The regular settlement of Dera Ismail Khān District was carried out from 1872 to 1879. The Thal tract of the Bhakkar and Leiah *tahsīls* was assessed at a fixed revenue, but the assessment broke down, and since 1887 a semi-fluctuating system has been in force. The Indus valley portion of these two *tahsīls* was originally assessed at a fluctuating acreage rate. At the latest settlement, 1898–1904, the same system of semi-fluctuating assessment, somewhat modified in its details, has been continued in the Thal of both *tahsīls*. The principle is that, when a share equal to from one-fourth to three-fourths of the area irrigated by a well falls out of cultivation, a corresponding fraction of the assessment will be remitted. The revenue on the 'dry' cultivation and the grazing revenue are fixed. In the Indus valley a system of fluctuating crop-rates has been introduced, and the whole

revenue varies. The demand, including cesses, for the whole District in 1903-4 amounted to nearly 5·7 lakhs. The average size of a proprietary holding is 57 acres, but some very large holdings raise the average.

The collections of land revenue alone and of total revenue are shown below, in thousands of rupees :—

	1900-1.	1903-4.
Land revenue . .	4,27	4,06
Total revenue . .	6,08	6,07

The District contains six municipalities: MIĀNWĀLI, ISA KHEL, KĀLĀBĀGH, BHAKKAR, LEIAH, and KAROR. Outside these, local affairs are managed by a District board, whose income in 1903-4 was Rs. 40,000, mainly derived from a local rate. The expenditure in the same year was Rs. 45,000, the largest item being Rs. 17,000 spent on education.

The police force numbers 492 of all ranks, including 81 municipal and 8 ferry police, under a Superintendent, who usually has 3 inspectors under him. There are 15 police stations and 5 police posts. The District jail at head-quarters has accommodation for 317 prisoners of all classes.

The District stands sixteenth among the twenty-eight Districts of the Province in respect of the literacy of its population. In 1901 the proportion of literate persons was 3·7 per cent. (6·7 males, 0·3 females). The number of pupils under instruction was 7,589 in 1900-1, and 8,290 in 1903-4. In the latter year there were 4 secondary, 72 primary, and 3 special (public) schools, 13 advanced and 208 elementary (private) schools, with 412 girls in the public and 967 in the private schools. The principal school is the high school at Miānwāli town. Industrial schools for girls are maintained at Isa Khel and Mankerā. The total expenditure on education in 1903-4 was Rs. 27,000, of which Local funds contributed Rs. 15,000, municipal funds Rs. 2,600, and fees Rs. 4,000.

Besides the Miānwāli civil hospital, the District has five out-lying dispensaries. These institutions in 1904 treated a total of 98,407 out-patients and 2,349 in-patients, and 4,962 operations were performed. The expenditure was Rs. 15,000, District and municipal funds contributing Rs. 5,000 each, and Government Rs. 5,000.

The number of successful vaccinations in 1903-4 was 10,464, representing 24·7 per 1,000 of the population. The Vaccination Act has been extended to the towns of Miānwāli, Isa Khel, and Leiah.

[D. C. J. Ibbetson, *District Gazetteers of Bannu and Dera Ismail Khān* (1883-4); S. S. Thorburn, *Settlement Report of Bannu* (1879); H. St. G. Tucker, *Settlement Report of Dera Ismail Khān* (1879).]

Miānwāli Tahsīl.—Head-quarters *tahsīl* of Miānwāli District, Punjab, lying between 32° 11′ and 33° 2′ N. and 71° 16′ and 71° 58′ E., with an area of 1,478 square miles. The population in 1901 was 111,883, compared with 103,909 in 1891. It contains the town of MIĀNWĀLI[1] (population, 3,591), the head-quarters; and 69 villages. The land revenue and cesses in 1903–4 amounted to Rs. 72,000. The northern part of the *tahsīl* is enclosed between the western slopes of the Salt Range on the east and the Indus on the west, forming a picturesque corner, which contrasts with the monotonous level of the remainder of the cis-Indus territory of the District, in which its southern part lies.

Miānwāli Town[1].—Head-quarters of the District and *tahsīl* of Miānwāli, Punjab, situated in 32° 35′ N. and 71° 31′ E., on the high left bank of the Indus, 655 feet above sea-level. It is the residence of a notable Saiyid family, the Miāns of Miānwāli, descended from a local Muhammadan saint, and themselves possessing a great reputation for sanctity. Population (1901), 3,591. Miānwāli was long the head-quarters of the Miānwāli subdivision of Bannu District, and was made the head-quarters of the new Miānwāli District in 1901. The civil lines are situated about half a mile from Miānwāli, which is little more than a village, and has no commercial importance. It was made a municipality in 1903–4, and contains a hospital and a model Government high school.

Michni.—Fort in the District and *tahsīl* of Peshāwar, North-West Frontier Province, situated in 34° 11′ N. and 71° 27′ E., on the left bank of the Kābul river, close to where it issues from the hills, and 15 miles north of Peshāwar city. The fort, which commands an important ferry over the Kābul river, was constructed in 1851–2 on account of the numerous raids by Mohmands from beyond the frontier. Lieutenant Boulnois, in command of the party constructing the fort, was murdered here by Mohmands in 1852; and in 1873 Major MacDonald, the commandant of the post, was murdered in its vicinity. There is no village of Michni; but the Tarakzai Mohmands have settlements all round, those on the south side of the river being in British territory. Fort Michni was formerly under the command of a field officer, subordinate to the Brigadier-General at Peshāwar; but in 1885 it was handed over to the border military police, who now hold it with a garrison of twenty men.

Midagesidurga.—Fortified hill, 3,376 feet high, in the north-east of Tumkūr District, Mysore, situated in 13° 50′ N. and 77° 12′ E. It is said to be named after a princess who was burned here with the corpse of her husband. Rānīs of the same family held it till it was

[1] Created a municipality since the last Census, and hence not shown as a town in the table on p. 319.

taken about 1670 by the Maddagiri chiefs, in whose hands it remained till captured by Haidar Alī in 1761. The Marāthās took it in 1767, but it was recovered by Tipū Sultān in 1774.

Midnapore District (*Medinipur*).—Southernmost District in the Burdwān Division of Bengal, lying between 21° 36′ and 22° 57′ N. and 86° 33′ and 88° 11′ E., with an area of 5,186 square miles. Midnapore is the largest and most populous of the Bengal Regulation Districts; and it is proposed to subdivide it into two Districts in order to ensure greater efficiency of administration. Its western boundary marches with Balasore District and the Mayūrbhanj Tributary State of Orissa and with the Singhbhūm and Mānbhūm Districts of Chotā Nāgpur, while its southern boundary is the coast-line of the Bay of Bengal. To the east the Hooghly river and its tributary the Rūpnārāyan separate it from the Twenty-four Parganas, Howrah, and Hooghly Districts, while on the north it is bounded by Bānkurā.

Physical aspects.

This extensive District comprises three tracts of well-marked characteristics: the north and west are of laterite formation, the east is deltaic, and the south is seaboard. The Contai and Tamlūk subdivisions, on the sea-coast and the estuary of the Hooghly, contain the mouths of the Rasūlpur and Haldī rivers. They are comparatively free from malaria and produce very rich crops of rice. The Ghātāl subdivision, farther north, slopes back from the bank of the Rūpnārāyan; the soil is a rich alluvium, but much of its area is liable to floods, and, though excellent crops are reaped, the inhabitants suffer greatly from malaria. The head-quarters subdivision consists in the north and west of thinly wooded and rocky uplands forming part of the fringe of the Chotā Nāgpur plateau; here the climate is good, though the laterite soil is dry and infertile. Towards the east and south the level dips, and a swampy hollow is formed between the elevated country to the west and the comparatively high ground along the coast. The conditions in this tract are very similar to those in the Ghātāl subdivision which it adjoins. In the north-west corner there are several hills over 1,000 feet in height, but the rest of the District is nearly level. The scenery is varied in the north and west, where there are extensive *sāl* forests and the country is undulating and picturesque.

The chief rivers are the HOOGHLY and its three tidal tributaries, the RŪPNĀRĀYAN, the Haldī, and the Rasūlpur. The Rūpnārāyan joins the Hooghly opposite Hooghly Point; its chief tributary is the Silai, flowing in a tortuous course through the north of the District and navigable as far as Ghātāl. The Haldī falls into the Hooghly opposite the northern point of Sāgar Island. Its principal tributaries are the Kāliāghai and the Kāsai, neither of which is navigable; the latter rises in Mānbhūm District and flows past Midnapore town. The

Rasūlpur rises in the south of the District, and joins the Hooghly a little below Kedgeree and the Cowcolly lighthouse. The SUBARNAREKHĀ enters the District from Singhbhūm, and passes through the jungle tract of Western Midnapore into Balasore District; it is not navigable.

In the extreme north-west corner of the District there is a low ridge, formed of grey and bluish grey micacean schists with bands of a more igneous character. The plains are covered in the north and west by lateritic rocks, which gradually give way in the south and east to the ordinary alluvium of the Gangetic delta. At the surface the laterite invariably contains small rounded fragments of other rocks, and in places these become conglomeratic, pebbles of quartz coated with oxide of iron and rounded fragments of other rocks being frequently formed. Close to Midnapore town, where a section is exposed, more than 50 feet of solid laterite are seen superposed in large tabular masses upon a soft soapy greyish white and reddish clay, resembling the kaolin clays which result from the decomposition of felspathic rocks.

In land under rice cultivation are found the usual marsh weeds of the Gangetic plain and many sedges, while the surface of ponds, ditches, and still streams is covered with aquatic plants. The homesteads are embedded in shrubberies of semi-spontaneous growth. Some species of figs, notably the *pīpal* and the banyan, make up, along with the red cotton-tree (*Bombax malabaricum*), *Mangifera*, *Moringa*, and *Odina Wodier*, the arborescent part of these thickets, in which numbers of *Phoenix dactylifera* and palmyra palms (*Borassus flabellifer*) are often present. Hedges and waste places are covered with climbing creepers and various milkweeds.

Bears and deer are still plentiful in the west, and leopards and hyenas are not uncommon. There are a few wild elephants and wolves, and a tiger is occasionally seen. Wild buffaloes were formerly common in the south, but these have disappeared with the extension of cultivation. Small game is plentiful, including wild geese, ducks, snipe, ortolans, teal, and hares; but, excepting the migratory birds, all game is decreasing. Snakes are numerous.

The climate of the arid tract in the north and west is very different from that of the swamps in the east and south. The average mean temperature for the whole District is about 80°. The coast-line is wetter and cooler than the higher portion. In the north and west, where the surface is of red laterite and the hot westerly winds from Central India penetrate, exceptionally high day temperatures are a feature of the hot months, and the mean maximum temperature rises to 102° in April and May. The monthly rainfall averages less than an inch for November, December, January, and February, and between 1 and $1\frac{1}{2}$ inches in March and April, after which there is a rapid

increase. The rainfall in June averages 9·80 inches, in July 12·42, in August 13·18, in September 9·04, and in October 4·43 inches. The annual total averages 59 inches.

The great cyclone of 1864 caused serious loss of life and property in the south-east; no less than 53,000 deaths were reported, and the returns were far from complete. The immediate losses were equalled, if not exceeded, by the mortality caused by the scarcity and pestilence that resulted from the destruction of the crops and the pollution of the drinking-water supply. Heavy storms, all causing more or less damage to life and property, have occurred on twelve other occasions during the last seventy years. In the alluvial tract the rivers frequently overflow their banks and cause widespread havoc to the crops; owing to silt the mouth of the rivers are obstructed, and large tracts of country remain submerged for weeks after a flood. In 1889 the Bengal Government found it necessary to appoint a Commission to investigate the causes of the frequent occurrence of these floods, and as a result the cross-damming of tidal channels for agricultural purposes has been restricted.

History.

The eastern portion of Midnapore originally formed part of the kingdom of Suhmā or Tāmralipta, the ancient name of Tamlūk, which is now the head-quarters of a subdivision on the Rūpnārāyan river. It derives its name from *tāmra* ('copper'), which was once an important article of export. The earliest traditional kings of Tamlūk were Kshattriyas of the Peacock dynasty, who were succeeded by Kaibarttas. The whole District, with Kalinga or Orissa, came under Buddhist influence in the fifth century B.C. Early in the fifth century A.D. the Chinese pilgrim Fa Hian spent two years at Tamlūk and thence took ship for Ceylon. Another Chinese pilgrim, Hiuen Tsiang, wrote of Tamlūk in the seventh century as still an important harbour, with 10 Buddhist monasteries containing 1,000 monks and a pillar of king Asoka. Midnapore District nearly coincides with the Muhammadan division known as *sarkār* Jaleswar, which had for its capital the town of that name now situated in Balasore District, and was included in Orissa at the time of Todar Mal's settlement in 1582. This *sarkār* paid to the Mughal emperor a revenue of 12½ lakhs, but during the last half-century of Muhammadan rule the Marāthās collected revenue from the southern portions of the District.

It was at Hijilī, at the mouth of the Rasūlpur river, that Job Charnock with a small force defended himself successfully in 1687 against an overwhelming army of Mughals, and it was from this place that he sailed to found Calcutta. The British occupation of the District dates from the year 1760, when Mīr Kāsim, who had been made Sūbahdār of Bengal by the British, assigned to the East India

Company the three Districts of Burdwān, Midnapore, and Chittagong to meet its military expenses. By a subsequent treaty, dated July 10, 1763, Mīr Jafar, who had been reinstated in place of Mīr Kāsim, confirmed the cession of these Districts, which were then estimated to furnish nearly a third of the whole revenue of Bengal. As a result of the decisive battle of Buxar, the Dīwāni of Bengal, Bihār, and Orissa was conferred in perpetuity on the East India Company in 1765. The Orissa therein referred to included only the District of Midnapore and a part of Hooghly; Orissa proper was not conquered from the Marāthās until 1803. The principal officer of the Company in this province was the Chief or Resident at Midnapore.

In the early years of British administration much trouble was given by the chiefs of the hilly country within as well as without the boundary, and frequent expeditions had to be made against them. The southern portion of the District, now the Tamlūk and Contai subdivisions, was at first administered by a Salt Agent and Collector at Hijilī. Tamlūk was transferred to Midnapore in 1789; but Hijilī remained a separate Collectorate up to 1836, when a quarter of it was amalgamated with Midnapore and the rest with Balasore. Dhalbhūm originally formed part of Midnapore, but it was transferred in 1833 to Mānbhūm and subsequently to Singhbhūm; in 1876, however, forty-five outlying villages were again included in Midnapore. In 1872 the *parganas* of Chandrakonā and Bardā were transferred from Hooghly District.

The principal object of archaeological interest is the temple at TAMLŪK, which is of Buddhist origin, but is now dedicated to the goddess Bargā-Bhīma, or Kālī. In the high lands there are various old *garhs* or forts of the petty jungle Rājās, of which little is left but the sites. Many of the large tanks are of great age, and some of the embankments constructed to restrain the rivers are anterior to the British occupation.

Population.

The population fell from 2,542,920 in 1872 to 2,515,565 in 1881, but rose again to 2,631,466 in 1891 and to 2,789,114 in 1901. The decrease in 1881 was due to the prevalence of an epidemic of malaria known as the 'Burdwān fever,' but since that year there has been a steady increase. During the last decade there was an advance of about 6 per cent. Midnapore is now fairly healthy, with the exception of the low tracts of the Ghātāl subdivision and the centre of the District, where malaria is prevalent. Hepatitis is not uncommon, and elephantiasis exists in the swampy parts of the alluvial portion of the District. Cholera has diminished since the opening of the railway, as the pilgrims to and from Purī no longer throng the roads spreading the disease in their train. The principal statistics of the Census of 1901 are shown below :—

Subdivision.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Midnapore .	3,271	1	3,782	1,277,749	391	+ 4·5	95,598
Ghātāl . .	372	5	1,042	324,991	874	− 0·9	38,100
Tamlūk . .	653	1	1,578	583,238	893	+ 9·0	92,139
Contai . .	849	...	2,062	603,136	710	+ 10·6	69,227
District total	5,186*	7	8,464	2,789,114	538	+ 6·0	295,064

* Includes 41 square miles returned as uninhabited river-beds.

Five of the towns—GHĀTĀL, CHANDRAKONĀ, KHARAR, RĀMJĪBANPUR, and KHIRPAI—are situated in the north-east of the District, which suffered from the 'Burdwān fever' epidemic, and they have scarcely yet regained the population they then lost. The remaining towns are MIDNAPORE, the head-quarters station, and TAMLŪK. The pressure of population is greatest along the banks of the Rūpnārāyan and the estuary of the Hooghly, the maximum density being found in the Tamlūk *thāna*, where there are 1,156 persons per square mile. Farther inland the climate is bad and the density gradually decreases. In the west the cultivable area is small, and the density steadily diminishes until, on the confines of Singhbhūm and Mayūrbhanj, it drops to 259 per square mile. The Contai subdivision is the most progressive part of the District, the increase being greatest in the Contai *thāna*, which in the course of ten years has added nearly a sixth to its population, and in the other three coast *thānas*. On the other hand, the Ghātāl subdivision and the Debrā, Sābang, and Nārāyangarh *thānas* in the head-quarters subdivision are decadent. This is due, not only to the prevalence of fever, but also to a movement of the population from the densely crowded and waterlogged tracts in the north-east and centre of the District to the newly reclaimed lands along the coast and tidal rivers in the Contai and Tamlūk subdivisions. There is a small loss by emigration. The railway has attracted coolies and employés, but it has also facilitated temporary migration to Calcutta and Hooghly. Of every 100 persons, 80 speak Bengali, 10 Oriyā, 3 Hindī, and the remainder other languages. Oriyā is spoken in the Contai subdivision and also in the western *thānas* of the head-quarters subdivision. Hindus number 2,467,047, or 88 per cent. of the total; Muhammadans, 184,958, or 7 per cent.; and Animists, 135,050, or 5 per cent. The Hindus and Muhammadans have increased slightly at the expense of the Animists, who are found only in the north and west of the District.

The Kaibarttas are the great race or caste, numbering no less than 883,000, or nearly a third of the whole population. The Bāgdis

(142,000), another aboriginal caste, who gave their name to the ancient Bāgri (South Bengal), are also strongly represented; and so are the Sadgops (131,000), a cultivating branch of the Goālās. The Santāls (148,000) are numerous in the north-west of the District. Of the higher castes, Brāhmans (114,000) are more numerous than elsewhere in Bengal proper, and the Kāyasths with the Karans, the indigenous writer caste of Orissa, number 91,000. The Baishnabs (93,000) have considerably increased during the last decade, but the Tāntis or weavers have lost ground. Of the Muhammadans, 121,000 are Shaikhs and 22,000 are Pathāns. Agriculture supports 77 per cent. of the population, industry 10 per cent., and the professions 3 per cent. The population is more distinctively agricultural than in any other part of West or Central Bengal.

The Christian population is increasing, and in 1901 numbered 1,974, of whom 1,545 were natives. The American Free Baptist Mission works among both the Bengalis and the Santāls; there is a small Roman Catholic mission to the Santāls; and Church of England missions are established at Midnapore town and Kharakpur.

Agriculture.

The new alluvium in the east and south produces abundant rice crops. In the west and north rice is grown in the depressions between successive ridges by terracing the slopes, and maize, millets, oilseeds, and pulses are grown on the uplands; but the crests of the ridges are very infertile. Along the sea-board and on the banks of tidal rivers and creeks, dikes are necessary to keep out the salt water, and similar embankments are erected to protect the lowlands in the interior from inundation by floods. The non-tidal rivers are dammed for irrigation purposes, so that the alluvial tract is covered with a network of embankments and cross-dams, which seriously impede the drainage, and in years of heavy rainfall large areas are waterlogged. The chief agricultural statistics for 1903-4 are shown below, in square miles:—

Subdivision.	Total.	Cultivated.	Irrigated from canals.	Cultivable waste.
Midnapore . .	3,271	1,876	130	243
Ghātāl . . .	372	242	...	47
Tamlūk . . .	653	376	15	171
Contai . . .	849	633	...	89
Uninhabited river-beds	41	...	...	...
Total	5,186	3,127	145	550

The uncultivable area extends over no less than 1,509 square miles, in the rocky western uplands and on the sea-shore and in the big rivers.

The staple product is rice, which occupies nearly three-fourths of the cultivated area. The winter crop, comprising 93 per cent. of the

total area under rice, is sown in the early part of the rainy season and reaped in November, December, and January. In the most highly cultivated parts the seed is first sown in nurseries, but in the low-lying lands it is sown broadcast. The autumn crop is sown broadcast on dry land in the months of April, May, and June, and reaped in August and September. The spring crop is sown broadcast after the rains, and is cut in March and April; it usually requires irrigation. The other crops are wheat, barley, peas, linseed, mustard, sesamum, sugar-cane, *pān* (*Piper Betle*), mulberry, jute, cotton, and indigo. Tobacco, turmeric, and market-garden produce are grown in small quantities on the homestead lands.

Land on which winter rice is grown seldom yields a second crop, but wheat, barley, peas, and linseed are often grown on land from which an early rice crop has been taken. Only 3·6 per cent. of the cultivated area was twice cropped in 1903-4. On some of the uplands a crop is raised only once every two or three years; this is usually sesamum or some other variety of oilseed. The cultivation of indigo, which was grown on high lands or the banks of rivers, has almost entirely died out, as the price of the dye has fallen so low that it no longer pays to manufacture it here. The silk industry has greatly decayed, owing largely to diseases amongst the worms.

Little space exists for further extension of cultivation in the alluvial tract; but much good land remains to be brought under cultivation in the west, and here the work of reclamation is now in progress. The out-turn in many parts might be much increased by substituting transplanted for broadcast rice. Fields are often manured with cow-dung and ashes; but the canal-irrigated and flooded tracts do not require manure, as the silt brought down by the water fertilizes the soil. Government loans are not popular, and during the ten years ending 1904 only about Rs. 1,000 a year was taken under the Land Improvement Loans Act and nothing under the Agriculturists' Loans Act.

The cattle are of the degenerate species met with in the plains of Bengal, and it is to be feared that they are still further deteriorating owing to the encroachment of tillage on the pasture lands. Attempts have been made at Midnapore town with some success to improve the breed of cattle by importing cows from Bihār and bulls from Hissār. Buffaloes are common in the south and are mostly kept for milk. No less than forty-three fairs are held, but they are generally of a religious or semi-religious nature, and few cattle are sold at them.

The main source of irrigation is the Midnapore High-level Canal, which takes off from an anicut across the Kāsai river just below Midnapore town, and runs to Ulubāria on the Hooghly, 16 miles below Calcutta. It was completed in 1873 at a cost of 80 lakhs, and has a navigable length of 72 miles, including the portions of the Kāsai,

Rūpnārāyan, and Dāmodar rivers into which it flows; regular steamer services, however, have ceased to ply since the opening of the Bengal-Nāgpur Railway to Calcutta. It has several distributaries, one of which is navigable, and in 1901 it supplied water to 80,000 acres of rice, or one-twentieth of the crop. Irrigation from tanks and embanked depressions is conducted in the upland tracts, but many of these tanks have been allowed by the landlords to fall into decay. In a year of good rainfall the average yield per acre of rice and straw from irrigated lands is 22 and 38 maunds, compared with 16 and 29 maunds respectively from unirrigated lands.

No 'reserved' or protected forests exist, but the western uplands are clothed with small *sāl* (*Shorea robusta*), *mahuā* (*Bassia latifolia*), tamarind, and *palās* (*Butea frondosa*). The jungle products are lac, *tasar* silk, wax, wood dye, bark fabrics, resin, firewood, and charcoal. The *mahuā* flower and various jungle roots are used as food.

The District contains no mines, but laterite and limestone are quarried. The former is of the kind known as rock laterite, and is close grained, hard, and durable; it is generally met with at a depth varying from 2 to 4 feet below the surface. Magnesian potstones are also found. Alluvial gold occurs in small quantities, and also iron and soapstone.

Trade and communications.

Excellent mats are manufactured at Raghunāthbāri, Kāsijorā, and Nārājol, whence they are exported to Calcutta. Pottery is made in the neighbourhood of Ghātāl for use in the metropolis, and brass and copper utensils are manufactured in Midnapore town for local sale. Bell-metal ware is extensively manufactured in Kharar, and exported to Calcutta and elsewhere. *Tasar* silk is manufactured in the north, but the processes are old-fashioned and the manufacturers are poor. Weavers are to be found in Chandrakonā and other places, but the industry is being killed by competition with machine-made imported fabrics. A Lyons firm owns a silk factory at Guruli in the Ghātāl subdivision. Salt was formerly manufactured by Government on an extensive scale along the coast, but the manufacture has now ceased.

Large quantities of rice are sent to Calcutta. Among the other exports are sugar and molasses, jute, linseed, gram, pulses, charcoal, brass and bell-metal ware, timber, hides, mats, silk and cotton cloth, *tasar* silk, pottery, and vegetables. The chief imports are cotton goods, coal and coke, kerosene oil, gunny, salt, tobacco, potatoes, enamelled ware, nails, &c. The principal trading marts are Midnapore, Ghātāl, Tamlūk, Kukrāhāti, Pānskurā, Chandrakonā, Bālighai, Kasiāri, Garhbetā, and Nawāda. Much trade is also done at the fairs held at Tulsīchurā, Gopīballabhpur, Mahishādal, and Egrā. Many parts of the District enjoy special facilities for trade. The tidal rivers Hooghly,

Rūpnārāyan, Haldī, and Rasūlpur afford an easy means of communication with Calcutta, and the canals carry much of the rice exported.

The main line of the Bengal-Nāgpur Railway from Calcutta to Bombay traverses the District from east to west; and at Kharakpur the East Coast section branches to the south, and the line through Bānkurā and the Jherriā coal-fields to the north. These lines have all been opened since 1899.

The Orissa trunk road from Kolā, on the Rūpnārāyan, through Midnapore to Dāntan on the frontier of Orissa and the pilgrim road from Midnapore to Rānīganj are in charge of the Public Works department. They are metalled and, except where they cross the Silai and Kāsai, fully bridged, and have an aggregate length of 112 miles. The District board maintains 364 miles of metalled and 376 miles of unmetalled roads, and there are 754 miles of village tracks. The principal roads are bridged except where they cross big rivers. They lead from Midnapore to Chichrā on the Singhbhūm border, from Ghātāl to Sijuā on the Mānbhūm border, from Pānskurā to Tamlūk, from Contai Road railway station to Contai, from Pirākāta to Garhbetā, from Midnapore to the Burdwān border, from Garhbetā to Chandrakonā, and from Tamlūk to Contai. Notwithstanding the numerous excellent roads, much of the traffic in the interior is still carried by pack-bullocks.

The Coast Canal runs from Geonkhāli at the junction of the Rūpnārāyan and Hooghly rivers to the Haldī river, and thence to the Rasūlpur river and through the canalized Sarpai river to Contai. About 8 miles above Contai it is continued into Balasore District. It is a tidal canal with locks, and is used solely for drainage and navigation; but the traffic has much decreased since the opening of the railway along the East Coast, and the regular service of steamers has ceased. The first two reaches of this canal from Geonkhāli to the Rasūlpur river, called the Hijilī Tidal Canal, were opened in 1873, and the remainder, called the Orissa Coast Canal, in 1885. The Midnapore High-level Canal, from opposite Midnapore on the Kāsai river to Dainān on the Rūpnārāyan, was opened in 1873; it is used for navigation as well as irrigation.

Daily steamer services run from Calcutta via Geonkhāli to Tamlūk and Kolā. Country boats ply in the Bay of Bengal, and on the Hooghly and the other tidal rivers of the District; these are made near Contai, are partly decked, and will stand a moderate sea.

Famine.

The District is not specially liable to drought, but the years 1766, 1770, 1792, 1851, 1866, and 1897 were years of famine or scarcity. Of the first three little is known, but in 1851 it was estimated that nearly five-eighths of the rice harvest was destroyed. In 1866 the District was involved in the great Orissa

famine. After a year of exceptional floods, a severe and protracted drought in 1865 resulted in a loss of half the winter rice crop, and the distress reached its height in August and September, 1866. Relief was afforded much too late and was meagre in the extreme; and although no accurate statistics of the mortality were obtained, it was estimated at 50,000, or no less than one-tenth of the total population of the famine tract. In 1897 a portion of the Binpur *thāna*, about 100 square miles in area, with a population of 25,000, was affected by scarcity.

Administration.

Midnapore District is one of the heaviest charges in Bengal. For the purposes of administration it is divided into four subdivisions, with head-quarters at MIDNAPORE, GHĀTĀL, TAMLŪK, and CONTAI. The staff at Midnapore town subordinate to the Magistrate-Collector, who is also *ex-officio* Assistant to the Superintendent of the Tributary Mahāls, Cuttack, and has the powers of a Revenue Superintendent of Canals in Howrah District, consists of a Joint-Magistrate, seven Deputy-Magistrate-Collectors, an Assistant Magistrate-Collector, and a special Deputy-Collector for excise. Each of the three outlying subdivisions is in charge of a Deputy-Magistrate-Collector; at Tamlūk he is assisted by a Sub-Deputy, and at Contai there is a second Deputy-Magistrate-Collector for the management of *khās mahāls*. The Executive Engineer of the Kāsai division of the Public Works department is stationed at Midnapore.

Civil justice is administered by a District Judge, with two Sub-Judges and four Munsifs at Midnapore, four Munsifs at Contai, four Munsifs at Tamlūk, and one Munsif each at Ghātāl, Dāntan, and Garhbetā. The criminal courts include those of the District Magistrate, the District and Sessions Judge, the Joint, Assistant, Deputy, and Sub-Deputy Magistrates. Midnapore is a heavy criminal District, and has long been notorious for the number of dacoities committed within its borders. These are largely the work of Tuntiās, a Muhammadan caste, whose traditional occupation is the cultivation of the mulberry-tree (*tunt*) for feeding silkworms. This occupation having become unprofitable, many of them have taken to criminal courses, and are professional thieves and dacoits.

The current land revenue demand in 1903-4 was 24·49 lakhs, of which 18·90 lakhs was payable by 2,733 permanently settled estates, Rs. 89,000 by 200 temporarily settled estates, and the balance by 67 estates held by Government. The demand is larger than that of any other District in Bengal except Burdwān, and is equivalent to 36 per cent. of the reported gross rental of the District, the incidence on each cultivated acre being Rs. 1-2. The Permanent Settlement never extended to the Patāspur *pargana*, which adjoins Orissa and was in the possession of the Marāthās, along with that province, until

1803. Among the other estates which escaped the Permanent Settlement are Jalāmutā, Mājnamutā, Kalyānpur, and Balarāmpur. The proprietors of Jalāmutā and Mājnamutā refused to engage for them at the time of the Permanent Settlement on any but temporary conditions, on account of the liability of these estates to inundation. Kalyānpur in the west of the District consists of *taufir* or 'excess' lands, which by an oversight were left unsettled in 1793. The Balarāmpur *pargana*, in the neighbourhood of Kharakpur, was purchased by Government in 1838 at a sale for arrears of revenue. Patāspur was surveyed and settled for fifteen years from 1897. The other temporarily settled estates, with an area of nearly 500 square miles, are now under resettlement.

The average rent per acre for occupancy ryots' lands in the Patāspur estates is Rs. 3-4-1, but rates vary greatly in different parts. Land on which winter rice is grown usually fetches about 50 per cent. more than that used for early rice, and sugar-cane land is about twice as valuable as the best rice land. In addition to the rent, a cash premium of from Rs. 30 to Rs. 75 an acre is usually taken at the commencement of a new lease.

The following table shows the collections of land revenue and of total revenue (principal heads only), in thousands of rupees :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue .	22,45	24,34	22,40	24,13
Total revenue .	31,01	34,95	37,36	39,75

Outside the municipalities of MIDNAPORE, TAMLŪK, GHĀTĀL, CHANDRAKONĀ, RĀMJĪBANPUR, KHIRPAI, and KHARAR, local affairs are managed by a District board, with four subdivisional local boards and five Unions. The income of the District board in 1903-4 was Rs. 3,38,000, of which Rs. 1,75,000 was derived from rates; and the expenditure was Rs. 3,47,000, of which Rs. 2,16,000 was spent on public works and Rs. 99,000 on education.

The system of railways and canals has already been described. Embankments have been constructed on an extensive scale, some with a view to protecting the coast-line from the invasion of the sea and preventing an inrush of salt tidal water from the creeks, and others to prevent the flooding of low lands by the overflow from the rivers. In all, no less than 785 miles of embankments are maintained by the Irrigation department, 543 miles at the public expense, and the balance at the cost of the parties benefited. A sea dike nearly 42 miles in length, extending from the western boundary of the District to the Rasūlpur river, protects the coast from inundation by storm-waves; it was constructed by Government in 1864-74 at a cost

of 6 lakhs. The right bank of the Hooghly from the Rasūlpur to the Rūpnārāyan river is protected by an embankment, which is extended along the west bank of the Rūpnārāyan as far north as Ghātāl. Both banks of the tidal rivers Haldī and Rasūlpur and of several tidal *khāls* are also similarly embanked. The Kāsai river is hemmed in on both banks for a distance of 120 miles to prevent its waters from overflowing, and so is the Silai river for a distance of 25 miles; the Kāliāghai river is also embanked. Most of the embankments which are now maintained at public expense were in existence before the country came under British administration; they were originally in charge of the *zamīndārs*, but they were greatly neglected, and it was found necessary for Government to undertake their repair in order to ensure the punctual collection of the revenue. Various measures have been adopted to improve the drainage in the waterlogged areas in the east and south of the District by cutting channels, deepening rivers and *khāls*, and providing sluices in embankments; but there is much scope for further work in this direction.

There is a lighthouse at Geonkhāli on the right bank of the Hooghly, opposite the northern point of Sāgar island.

The District contains 26 *thānas*, 10 outposts, and 4 road-posts. In addition to the District Superintendent and his Assistant, the force includes 7 inspectors, 68 sub-inspectors, 68 head constables, 649 constables, and 109 town *chaukīdārs*; there is also a village police of 494 *daffadārs* and 5,863 *chaukīdārs*. The regular force is small for this large area, as there is only one policeman to 8·6 square miles and to 4,832 persons. The majority of the village *chaukīdārs* are now under Act VI (B.C.) of 1870, but many of them in the west of the District are still remunerated by service lands. The latter are the successors of the *paiks*, or foot-soldiers, who were retained by the *zamīndārs* of former times as a defence against the incursions of Marāthās and hill-robbers; their service lands are being gradually resumed, and they are being enlisted on regular pay under the Bengal Chaukīdāri Act. A Central jail at Midnapore town has accommodation for 1,340 prisoners, and sub-jails in the outlying subdivisions for 48.

At the Census of 1901 the proportion of literate persons was 10·6 per cent. (20·5 males and 0·7 females), a larger proportion than in any other part of Bengal except Calcutta and Howrah. The total number of pupils shown in the returns of the Educational department increased from 81,000 in 1883 to 107,000 in 1892–3, and 118,000 in 1900–1. There was a slight fall in 1903–4, when 102,000 boys and 12,000 girls were at school, being respectively 48·8 and 5·7 per cent. of the children of school-going age; both proportions compare favourably with the ratios for the whole of Bengal. The number of educa-

tional institutions, public and private, in 1903–4 was 4,263, including an Arts college, 118 secondary, 4,077 primary, and 66 special schools. The expenditure on education was 4·63 lakhs, of which Rs. 35,000 was met from Provincial funds, Rs. 94,000 from District funds, Rs. 6,000 from municipal funds, and 2·62 lakhs from fees. A training school at Binpur for aboriginal tribes and depressed castes, under the management of the American Baptist Mission, supplies teachers to 39 attached *pāthsālas* in the Jungle Mahāls. A small technical school at Midnapore town is aided from District funds, and a *madrasa* at Patāspur is provided with a hostel from Provincial revenues. The District also contains 58 Sanskrit *tols*, of which 53 have adopted the standards prescribed by the Educational department.

In 1903 the District contained 14 dispensaries, of which 7 had accommodation for 123 in-patients. The cases of 20,000 out-patients and 1,500 in-patients were treated during the year, and 4,700 operations were performed. The expenditure was Rs. 29,000, of which Rs. 4,000 was met from Government contributions, Rs. 5,000 from Local and Rs. 12,000 from municipal funds, and Rs. 7,000 from subscriptions.

Vaccination is compulsory only in municipal areas. Elsewhere it is very backward, and in 1903–4 only 68,770 persons, or 25·5 per 1,000 of the population, were successfully vaccinated.

[Sir W. W. Hunter, *Statistical Account of Bengal*, vol. iii (1876); *Reports of the Embankment Committee* (Calcutta, 1839–40, reprinted in 1901); J. Price, *Early History of Midnapore* (Calcutta, 1876); *Selections from the Records of the Government of Bengal on the Settlement of Jalāmutā and Mājnamutā Estates in Midnapore* (Calcutta, 1882); *Embankment Committee's Report* (Calcutta, 1888).]

Midnapore Subdivision.—Head-quarters subdivision of Midnapore District, Bengal, lying between 21° 46′ and 22° 57° N. and 86° 33′ and 87° 43′ E., with an area of 3,271 square miles. The subdivision consists in the north and west of thinly wooded and rocky uplands. The climate is good, but the laterite soil is dry and infertile. Towards the south and east the level dips, and a swampy hollow is formed between the elevated country to the west and the comparatively high ground along the coast. The population in 1901 was 1,277,749, compared with 1,223,248 in 1891, the density being 391 persons per square mile, which is much less than in any other subdivision. It contains one town, MIDNAPORE (population, 33,140), its head-quarters; and 3,782 villages. KHARAKPUR, 8 miles from Midnapore town, is an important railway junction.

Midnapore Town (*Medinipur*).—Head-quarters of Midnapore District, Bengal, situated in 22° 25′ N. and 87° 19′ E., on the north bank of the Kāsai river. Population (1901), 33,140, of whom Hindus

numbered 26,094, Musalmāns 6,575, and Christians 398. The town was formally declared the head-quarters of the District in 1783, but a factory and fort had been built here more than twenty years previously. Midnapore has no great industry or trade, though brass-ware, rice, and timber are exported on a small scale. The town shows little tendency to grow. It has been recently connected with the Bengal-Nāgpur Railway system by a branch line to Kharakpur. Midnapore was constituted a municipality in 1865. The income during the decade ending 1901–2 averaged Rs. 60,000, and the expenditure Rs. 58,000. In 1903–4 the total income was Rs. 64,000, of which Rs. 18,000 was derived from a tax on houses and lands, Rs. 14,000 from a conservancy rate, Rs. 12,000 as fees from educational institutions, and Rs. 6,000 from a tax on vehicles. The incidence of taxation was Rs. 1–2–3 per head of the population. In the same year the expenditure of Rs. 63,600 included Rs. 2,000 spent on lighting, and the same amount on drainage, Rs. 16,000 on conservancy, Rs. 11,000 on medical relief, Rs. 4,000 on roads, and Rs. 20,000 on education. The town contains the usual public buildings, and also a church and a Central jail. The jail has accommodation for 1,340 prisoners, who are employed on cloth-weaving, cane- and basket-work, mat-making, carpentry, and the manufacture of mustard oil. The American Baptist Mission maintains a training school and printing press. The educational institutions include an Arts college and a small technical school.

Midnapore Canal.—A navigable and irrigation canal in the Midnapore District of Bengal. Construction was begun by the East India Irrigation and Canal Company in 1886; the works were taken over by Government two years later, and irrigation commenced in 1871. The canal originally formed part of the Orissa Canals scheme, but was at an early stage separated and treated as a distinct project. The water-supply is derived from the Kāsai river at Midnapore, where there is a regulating weir with head-works, and the canal extends to Ulubāria on the Hooghly, crossing the Rūpnārāyan and Dāmodar rivers.

The length of the main canal is 72 miles, and of its distributaries 267 miles, and the maximum discharge is 1,500 cubic feet per second. The whole length of the main canal is navigable, and the estimated value of cargo carried in 1902–3 was 63·8 lakhs, the tolls collected amounting to Rs. 70,000. The capital outlay up to March 31, 1904, was 84·8 lakhs, and the gross revenue for that year amounted to 2·2 lakhs, the net revenue being Rs. 70,000; the total area irrigated was 146 square miles. Before the opening of the Bengal-Nāgpur Railway the canal formed part of the main route between Calcutta and Midnapore; the railway has tapped the canal traffic and caused

a falling off in the receipts from navigation, which has been accompanied, however, by a corresponding decrease in working expenses.

Mihrpur.—Subdivision and town in Nadiā District, Bengal. *See* MEHERPUR.

Mīkīr Hills.—A tract of hilly country in Nowgong and Sibsāgar Districts, Eastern Bengal and Assam, lying between the Assam Range and the Brahmaputra, about 26° 30′ N. and 93° 30′ E., but cut off from the main mountain system by the valleys of the Dhansiri on the east, and of the Kapili and its tributaries on the west. The northern hills are composed of gneissic rocks, which towards the south are overlain by sedimentary strata of Tertiary origin. These younger rocks consist of soft yellow sandstones, finely laminated grey clay shales, and nodular earthy limestone. Limestone is found near the Nāmbar, Deopāni, Hariājān, and Jamunā rivers, and iron ore is of widespread occurrence, though the haematite is seldom sufficiently concentrated to pay for working. Coal of inferior quality is found near the Langlei hill and the Nāmbar river. The hills have steep slopes, and both they and the intervening valleys are covered with dense jungle. They extend over an area of about 2,000 square miles and average from 1,000 to 2,000 feet above the sea, though the loftiest summits attain a height of nearly 4,500 feet. The Mīkīrs, the tribe inhabiting these hills, speak a language which occupies an intermediate position between Bodo or Kāchāri and the various forms of Nāgā speech. In character and habits they differ entirely from the savage hillmen to the south, and are quieter and more timid than any other tribe in Assam. Dalton states[1] that they were originally driven from the hills of North Cāchār to the Jaintiā Hills, where they are still to be found in considerable numbers; but the majority of the tribe were displeased with the treatment they received, and moved to the locality which has since borne their name. Similar migrations were undertaken by the Lalungs, a kindred neighbouring tribe, who according to their traditions went to the Jaintiā Hills to escape the necessity of providing the Kāchāri Rājā with a daily ration of six seers of human milk, and left because they did not like the matriarchal theory of inheritance there in force. The Mīkīrs are said to have been compelled to forswear the use of arms by the Ahom government, and this is offered as an explanation of their present peaceful disposition. They live in small hamlets near the crops of rice, cotton, and chillies which they raise on the hill-side. Their houses are large and strongly built, and are raised on platforms above the ground. Rice is their staple food, but they eat fowls and pork and consume large quantities of fermented liquor.

Milak.—South-eastern *tahsīl* in the State of Rāmpur, United Provinces, lying between 28° 34′ and 28° 51′ N. and 79° 5′ and

[1] *Ethnology of Bengal*, p. 54.

79° 18′ E., with an area of 156 square miles. Population (1901), 94,046. There are 201 villages and one town, Milak (population, 2,615), the *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 3,83,000, and for cesses Rs. 46,000. The density of population, 603 persons per square mile, is slightly above the State average. The *tahsīl* lies in the fertile central tract. In 1903–4 the area under cultivation was 115 square miles, of which 24 were irrigated, chiefly from canals.

Mīlam.—Village in the District and *tahsīl* of Almorā, United Provinces, situated in 30° 26′ N. and 80° 9′ E. Population (1900), 1,733. The village is inhabited only in the summer, when it is the residence of the Bhotiā traders with Tibet. It lies at an altitude of 11,400 feet, 13 miles south of the ANTA DHURĀ pass, to which access is obtained by a difficult and trying ascent. Below the village, near the Gorī stream, is a considerable stretch of alluvial land, which in summer produces buckwheat and barley. The surrounding country is bleak and desolate, but presents a scene of peculiar grandeur. Lofty snow mountains shut in the valley, and waterfalls are numerous and often of considerable beauty. The London Mission has a station here, and there is a school with about 50 pupils.

Milūr.—Subdivision, *tāluk*, and town in Madura District, Madras. *See* MELŪR.

Minbu Division.—South-western Division of Upper Burma, lying entirely in the Irrawaddy basin, between 18° 52′ and 22° 50′ N. and 93° 59′ and 95° 52′ E. It is bounded on the north by the Upper and Lower Chindwin Districts; on the east by the Lower Chindwin, Sagaing, Myingyan, Yamethin, and Toungoo Districts; on the south by Prome District; and on the west by the Arakan Division and the Chin Hills. It comprises four Districts: Thayetmyo in the south, lying astride the Irrawaddy, mainly in Lower Burma; Minbu and Magwe, north of Thayetmyo, the former between the Irrawaddy and the Arakan Yoma, the latter between the Irrawaddy and the Pegu Yoma; and Pakokku, extending from the Irrawaddy and Chindwin to the Chin Hills. The Commissioner of the Division also exercises control over the PAKOKKU CHIN HILLS, which lie to the west of Pakokku. With the exception of a comparatively narrow strip of hill country in the west, practically the whole of the Division lies in, and is typical of, what is known as the dry zone of Burma. The population of the Division (excluding the Pakokku Chin Hills) was 997,269 in 1891, and 1,076,280 in 1901. Its distribution in 1901 is shown in the table on the next page.

The population is distributed over 7 towns and 4,714 villages. The head-quarters are at MINBU (population, 5,780), in river communication with all the other District head-quarters. The other towns are

PAKOKKU (19,456), THAYETMYO (15,824), ALLANMYO in Thayetmyo District (10,207), SALIN in Minbu District, and MAGWE and TAUNGDWINGYI in Magwe District. Pakokku and Allanmyo are trade centres, and both Thayetmyo and Salin are towns of some antiquity, but there are no important historic sites in the Division. By far the greater number of the people are Burmans, who aggregated 1,009,102 in 1901. Chins (to the number of 43,810) inhabit the Arakan Yoma and Chin Hills along the western border, and, to a small extent, parts of the Pegu Yoma also. In Pakokku District are a community known as the Taungthas, numbering 5,701. Shans and Chinamen are few in number, as are natives of India. The Census of 1901 showed totals of only 4,768 Hindus and 4,696 Musalmāns.

District.	Area in square miles.	Population, 1901.	Land revenue and *thathameda*, 1903-4, in thousands of rupees.
Thayetmyo . .	4,750	239,706	4,57*
Pakokku . . .	6,210	356,489	8,53
Minbu . . .	3,299	233,377	6,62
Magwe . . .	2,913	246,708	5,07
Total	17,172	1,076,280	24,79

* Includes capitation tax in Thayetmyo.

Minbu District.—A dry zone District in the Minbu Division of Upper Burma, lying along the western bank of the Irrawaddy, between 19° 50′ and 21° 2′ N. and 94° 2′ and 95° 2′ E., with an area of 3,299 square miles. It is bounded on the north by Pakokku District; on the south by Thayetmyo; on the east by the Irrawaddy, which separates it from Magwe District; and on the west by the Arakan Yoma, which divides it from Kyaukpyu. Roughly speaking, the land over the greater part of the District rises from east to west away from the Irrawaddy valley. In the extreme east are sandy plains on the banks of the river, which gradually become broken undulations, and then give place first to rocky jungle-covered hills and finally to the steep and even majestic range that severs the District from the Arakan coast-lands and the sea. This configuration is modified by various small rivers which flow into the Irrawaddy and drain the uplands. Cultivation is chiefly confined to the strips of land extending east and west which these rivers irrigate, and to the alluvial tract running north and south along the course of the Irrawaddy. Between these irrigated tracts, and covering almost the whole of the south of the District, is dry gravelly country clothed with scrub jungle, ending in the extreme south in a spur of hills which breaks off at right angles from the western range.

Physical aspects.

The ARAKAN YOMA, which forms the barrier between Minbu and Kyaukpyu, runs south-east and north-west, and rises in places to a height of over 5,000 feet. Parallel to the main range on the east, and between it and the river, are the Nwamadaung hills, a chain running the entire length of the District, but far lower than the Yoma, averaging in height only about 600 feet. Of the rivers of Minbu, the Irrawaddy is the most important. It skirts the District for about 80 miles, and its width opposite Minbu town is nearly 3 miles, though the expanse of waters is broken even in the rains by one or other of the numerous shifting sandbanks which here make navigation difficult at all seasons. In the course of the year the river level rises 40 feet, the most constant rise being from June till the beginning of September, and in flood-time the current flows at a rate of 5 or 6 miles an hour. The other rivers of the District—the Salin, the Mon, and the Man—are all tributaries of the Irrawaddy, which find their source in the hills in the west. The Salin rises in the Pakokku Chin Hills, not far south of Mount Victoria, and enters the District from the north, flowing in a southerly direction from Pakokku District to about 35 miles from the boundary, when it bends abruptly and takes a north-easterly course to meet the Irrawaddy near Sinbyugyun. For the greater part of its course in the District it is a broad, slow, shallow stream, with low indefinite banks and a gravelly bed. Above Salin in the dry season it holds but little water, and below that town it is quite dry. The alluvial plain skirting it is well watered by an extensive system of canals. The Mon rises in the mountains west and north of Mount Victoria, and enters the District at its north-west corner. It runs first in a south-easterly direction along a narrow valley between the Arakan Yoma and the Nwamadaung. Below Sidoktaya it pierces the latter range and emerges on the plain, flowing eastwards across it for about 34 miles in a wide channel before entering the Irrawaddy. Its waters are perennial, and the rich valley it is capable of irrigating will in the near future be a very valuable rice tract. The Man rises in the Arakan Yoma in the south-west corner of the District, and flows in a north-easterly direction through a break in the Nwamadaung hills into the Irrawaddy, which it enters at Minbu. Like the Salin its waters are diverted into irrigation canals, but the stream is of little size in the dry season.

Two lakes are worthy of mention; one at Paunglin, and one known as the Wetthigan lake. The former is situated near the Irrawaddy, 10 miles south-east of Salin town, and is really a lagoon fed by the overflow of the Irrawaddy. In the hot season the bed is practically dry, and is sown with rice. When the Irrawaddy rises the water rushes in through two creeks which are dammed up as soon as the river begins to subside, and until the dry season comes round again

the sheet of water thus formed is worked as a fishery by the neighbouring villages. It provides good duck-shooting in the cold season. The Wetthigan lake, which is not fished, as it was held sacred under Burmese rule, is formed by rain-water and the outflow from the Salin canals. It has an area of 366 acres, and lies half a mile to the west of Salin town.

North of Minbu town the country is overlaid with the alluvium of the Mon and Irrawaddy rivers. South and west of the town the ground is undulating, and is occupied mainly by soft sandstones of Upper Tertiary (pliocene) age, containing fossil wood and fragments of mammalian bones. A small area of miocene rocks is brought up near Minbu by an anticlinal fold consisting of blue and olive clays with soft sandstones, belonging to the upper or Yenangyaung stage of the Pegu series. Traces of oil are found along the crest of this anticlinal, and on it, near Minbu, a number of mud volcanoes are situated[1]. The miocene beds are also exposed in the western part of the District, extending along the foot of the Arakan Yoma, followed in the hills by Nummulitic shales and limestones (upper eocene). West of these again is a band of purple schists, and green and purple shales (Chin shales), traversed by numerous dikes of dolerite and dark-green serpentine. Steatite occurs in association with the serpentine, and is quarried near Pa-aing and Sinlan, west of the Nwamadaung.

The vegetation follows the three natural divisions adverted to in an earlier paragraph, and may be divided into the flora of the alluvial and irrigated tracts, that of the dry uplands, and that of the submontane and Yoma zones. In the alluvial belt we find a stretch of savannah, the chief constituent grasses being *Imperata arundinacea* and *I. exaltata*; trees are sparse here, the more common ones being *Bombax malabaricum*, *Butea frondosa*, and *Parkinsonia aculeata*. Moist hollows are frequent; as a rule they are surrounded by a copse of shrubs and trees, generally *Xanthophyllum glaucum*, and filled up with *Polygonum stagnium* or *Combretum trifoliatum*. Round villages toddy-palms (palmyras) and coco-nut palms are common, and banyans, *pīpals*, mangoes, or jack-fruit trees are usually to be found. The banks of the Irrawaddy are covered with a great variety of herbaceous plants. The irrigated areas present much the same features as the alluvial, though the coarse grasses of the latter are to a considerable extent here replaced by *Desmodium triflorum*, *Tephrosia purpurea*, and similar plants, while *Calotropis* is quite common. The dry upland vegetation is peculiarly characteristic of the District. It forms a rolling wilderness of prickly scrub, the principal shrubs in which are the so-called wild plum (*Zizyphus Jujuba*), *Randia dumetorum*, special species of *Capparis*, and the cactus-like *Euphorbia antiquorum*. True cactus is also found

[1] F. Noetling, *Memoirs, Geological Survey of India*, vol. xxvii, pt. ii, p. 35.

near villages. Trees are scarce, the only common kinds being *Albizzia Lebbek* and *Acacia leucophlaea*, the latter providing welcome oases of bright verdure in the burnt-up scenery of the hot season. In the mountain tracts, the Nwamadaung hills are clad with deciduous forest and present a very bare appearance in the hot season owing to the almost total absence of herbaceous undergrowth. The lower slopes of the Yoma proper are clothed with deciduous forests of much the same kind, while its upper crests are covered with evergreen forest.

From the sportman's point of view the District is as well provided with wild animals as any in Burma. Tigers are common in places, elephants, bison, the *tsine* or *hsaing* (*Bos sondaicus*), and the Tibetan bear are plentiful, and leopards are dangerously numerous. The Malayan bear and the rhinoceros are also found. Of the deer tribe, the *sāmbar* (*Cervus unicolor*), the *thamin* (*Cervus eldi*), and the hog deer abound in places, while the barking-deer is a pest to cultivators. Wild hog are not uncommon, and three kinds of wild dogs are to be found: namely, the ordinary grey wild dog, the jackal, and a wolf. Porcupines and otters occur, but very rarely. Among game-birds the silver pheasant, Hume's pheasant, the bamboo partridge, and the Chinese francolin deserve special mention; while peafowl, jungle-fowl, rain quail, button quail, snipe, teal, and most varieties of duck all find a habitat in the District.

The climate of Minbu varies. In the hilly portion west of the Nwamadaung it is, except during the first four months of the year, deadly for Europeans, and even for Burmans, save those who actually live in the hills, whereas in the east the conditions are much the same as in other Districts in the dry zone of Upper Burma. The cold season lasts from November till February, the hot season from March till May, and the rains from June till November. The cold season is delightful, but April and May are oppressively sultry, and Minbu has the reputation of being one of the hottest Districts in Burma during those two months. The following maxima and minima were recorded in 1901: December, 89° and 60°; May, 107° and 87°; July, 95° and 77°. In April and May the thermometer rises not infrequently to 109°. The nights, however, are nearly always cool, even in the most sultry weather.

The annual rainfall for the five years ending 1900–1 averaged 26·6 inches. It should be noted, however, that the rainfall in the hills in the west is often nearly double that in the eastern portion of the District. In the east, which is a typical dry zone area, steady downpours lasting for days are unknown. When it comes, the rain descends in showers which seldom last more than four or five hours. There are floods of some extent every year, and the rise of the river corresponds roughly with the rainfall. It is estimated that an ordinary

high flood occurs every three years, and an unusually high flood one year in five.

History.

The early history of Minbu is pure legend, being concerned largely with the doings of Alaungsithu, king of Pagan, who is credited with having improved the early irrigation systems of the District in the twelfth century. Under Burmese rule the charge of what is now Minbu District was entrusted to three *wuns* living at Salin, Sagu, and Ngape, while Minbu itself was administered by an official called a *penin* ('coxswain of a royal boat'). Each *wun* had under him a *sitke* (technically military officer), a *nahkan*, and a *sayegyi* or head clerk, while all important villages were under a *myothugyi*. Of the towns, Salin was then the largest, containing in 1826 some 10,000 inhabitants. Minbu was first occupied by the British in March, 1886, and became the head-quarters of a military command in July. In the succeeding year the troops were gradually withdrawn, and Myingyan became the military head-quarters. The chief feature in the annexation of the District was the stubborn resistance offered by two dacoit leaders, Nga Swe and Oktama, the former operating chiefly south of the Man river, the latter north of the Man as far as Salin. Nga Swe, who, as a border *thugyi*, had frequently harried British territory, collected a large following and captured Ngape, a police outpost, in May, 1886. After an unsuccessful attempt to capture him, in which Mr. Phayre, the Deputy-Commissioner, lost his life, he was driven out; but he then laid siege to the village of Thabyebin, which was only relieved after the British garrison had been reduced to sore straits. The occupation of various outposts in his country and vigorous pursuit by mounted infantry drove this notorious outlaw eventually to Thayetmyo District, where he was killed. Oktama was a *pongyi* who collected a band of insurgents, and attacked and burnt Sagu in April, 1886. He was driven out, but reappeared in June of the same year with 3,000 men and laid siege to Salin. The gang dispersed after this, but later gave much trouble round Pyilongyaw; and it was not till June, 1889, that Oktama was betrayed into British hands and hanged after due trial.

The only archaeological remains of interest are a few pagodas. Salin is a town of some antiquity, having been founded, according to tradition, about A.D. 1200, by Narapadisithu, king of Pagan; and the remains of the old city wall present a fine specimen of ancient Burmese fortification. Of pagodas, the most important is the Shwezettaw ('the golden foot') in the Sagu township, not far from Minbu town. It is said to derive its name from the fact that when Buddha came to Burma he went to the site of the Shwezettaw pagoda and there left his footprints, one by the bank of the Mon stream, and one on the top of the hill which rises sheer on the opposite bank. Thither every year

at the time of the pagoda festival, which lasts from the middle of February to the middle of March, come streams of gaily-dressed pilgrims from every part of Burma. The pagoda at Kyaungdawya in the Legaing township is reverenced as marking the place where Buddha rested during the same visit. Other important pagodas are the Koktheinnayon near Salin, and the Myatsepo and Shwebannyin, both in the Legaing township. Towards the upkeep of three pagodas and two *natsins* ('spirit shrines') the Archaeological department makes an annual grant.

Population.

The population was 215,959 in 1891 and 233,377 in 1901. Its distribution in the latter year is shown in the following table:—

Township.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Sagu	542	1	197	57,699	106	+ 32	18,444
Legaing	533	...	146	36,397	68	+ 1	8,874
Ngape	362		144	16,033	44	+ 22	3,867
Salin	741	1	464	100,737	136	+ 2	27,850
Sidoktaya	1,121	...	208	22,511	20	− 8	4,686
District total	3,299	2	1,159	233,377	71	+ 8	63,721

The only towns are the municipalities of MINBU and SALIN. There has been a distinct increase of population in all the townships except Legaing, which will probably develop rapidly when the new canals are completed, and the sparsely populated and hilly township of Sidoktaya in the west. The growth in the Salin township as a whole is accompanied by a diminution in Salin town, the precise cause of which is doubtful. There has been considerable immigration of recent years from Magwe and Myingyan Districts. Along the Irrawaddy valley villages are numerous and the density of population is high, but the forest-clad areas on the slopes of the Yoma are very thinly populated. There are no Christian missions and only 101 native Christians. The Chins are nearly all *nat*-worshippers; otherwise Buddhism reigns supreme. Burmese is the vernacular of 93 per cent. of the people.

The majority of the population is Burman everywhere, except in the western townships, where it is composed largely of Chins of the Chinbok tribe; and tradition has it that Salin was originally a Chin colony. The Chins in all numbered 15,600 in 1901, forming one-fifth of the population of the Ngape township, and half that of Sidoktaya. The people of Sagu and parts of the Salin township are said to be of Shan descent, and the weaving village of Nwetame, a suburb of

Sinbyugyun, is reckoned a Shan colony; but the Census returned only 1,000 Shans. In connexion with the population, mention should be made of the large landed proprietors of Salin known as *thugaungs*, rich families who have gradually come to form a separate class, intermarrying among themselves, and living in almost patriarchal fashion. Their houses are as a rule surrounded by spacious compounds, in which are lodged their tenants and retainers, and at least one compound contains a school for the children of the *thugaung's* followers. The *thugaungs*, it may be noted, freely recognize their Chin origin. Natives of India numbered 1,850 in 1901, the total being equally divided into Hindus and Musalmāns. About one-third of them live in the two municipalities. About 66 per cent. of the entire population are directly dependent on agriculture for a livelihood. Of this total, more than a third are dependent on *taungya* cultivation alone.

Agriculture.

The District is an essentially agricultural one; but the light rainfall, the vicissitudes of the seasons, and the easy-going disposition of the people make their agricultural income sadly precarious. Especially is this the case with those who, living at a distance from rivers or canals, cultivate upland crops, such as sesamum and *jowār*, which are particularly dependent on a proper distribution of moisture. Of the capabilities of the soil on the whole the cultivator has no reason to complain, for, apart from irrigated and alluvial land, he can grow *mogaung* rice in the hollows of the undulating uplands (*indaing*), and the crop only requires proper rain to be profitable. But agricultural practice is slovenly: no care is taken in the selection of seed at harvest; a large amount of land is tilled badly instead of a small amount well, and no trouble is taken to manure the fields.

Rice is usually transplanted, but it is also occasionally sown broadcast on lands flooded late by the Irrawaddy. Ploughing is done with the *tun* or harrow; sometimes in river-flooded land even this process is dispensed with, and the soil is merely stirred up by driving cattle to and fro over it. On alluvial land the *te* or plough is used, a rude but effective instrument; and clods are crushed on rice and alluvial land by an implement called the *kyanbaung*.

The area under cultivation varies very considerably from year to year, owing to the irregularity of the rainfall. The table on the next page exhibits the main agricultural statistics for 1903–4, in square miles.

The area under rice is comparatively large for a District in the dry zone. It is the staple crop, occupying more than 120 square miles in 1903–4, and is both lowland (*le*) and hill (*taungya*). Next in importance is sesamum, covering 116 square miles. About 49 square miles are under pulses of various kinds; but maize and *jowār* are grown to a very

much smaller extent than in the other dry zone Districts, occupying together only about 70 square miles. Gram, hardly grown at all in the adjoining District of Magwe, here covers 18 square miles, and is increasing in popularity. The tobacco crop in 1903-4 (3,000 acres) was small compared with that of the previous year. About 700 acres are under cotton. The area devoted to garden cultivation (2,000 acres) is small, but is larger than in many other dry zone Districts. Betel-vines and plantains are cultivated in the Legaing township, and mangoes, coco-nuts, and the like in the Salin township. The betel vineyards at Pwinbyu on the Mon river are deserving of special mention.

Township.	Total area.	Cultivated.	Irrigated.	Forests.
Sagu	542	105	24	1,561
Legaing	533	70	14	
Ngape	362	9	5	
Salin	741	186	46	
Sidoktaya	1,121	15	5	
Total	3,299	385	94	1,561

Cultivation is on the increase, especially in the uplands; and when the Mon canal system is completed, there should be a large increase in irrigated land also. The introduction of new varieties of seed is a difficult task. An improved kind of plantain has, however, been brought from Mandalay, and a dry variety of pea from the United Provinces, while attempts are being made to get tobacco-growers to experiment with Havana seed. After bad years cultivators are much helped by the system of agricultural loans. The average amount allowed for the District is Rs. 13,800 per annum, every rupee of which, in hard times, is applied for, and very little has ever to be written off subsequently as irrecoverable.

Cattle-breeding is carried on, but scientific breeding requires a care and attention which the people are but little disposed to give to it. Cows are extensively kept, but almost solely for breeding purposes; a cow that produces a good heifer at once rises in value. Trotting bullocks are also in considerable demand. Ponies, too, are bred; but colts and foals are ridden far too young, and though good colts are doubtless kept for breeding purposes, no care at all is taken over the selection of mares. Something is at present being done to encourage sound breeding by the institution of an annual agricultural show at Sagu. Buffaloes are found chiefly in the villages along the Irrawaddy. They are not used in the upland tracts, and only occasionally on irrigated land. The average price for a pair of buffaloes is between Rs. 120 and Rs. 150.

Ample provision for grazing grounds was made at the time when the District was settled, but the system has not been found very successful

in practice. Allotments of land for grazing purposes have frequently to be revoked, because the land is required for cultivation, and very often what is allotted is too far from the village to be of much use. In the irrigated tracts no grazing grounds have been reserved at all, and cultivators here send their cattle to upland villages when turning them out to grass.

The total area of irrigated land in 1903-4 was 94 square miles, dependent almost entirely on the Man and Salin Government irrigation systems. Of this total, more than 90 square miles were under rice. The Man system begins at Sedaw, a village situated on the Man river where it leaves the hills, about 20 miles from its mouth, and serves more than 40 square miles on its northern bank. The Salin system begins at Theywa, a village on the Salin river 29 miles from the Irrawaddy, and irrigates more than 50 square miles on both sides of the Salin. It comprises eighteen canals, the most important of which is the Myaungmadaw, which, leaving the Salin river at Linzin 12 miles above Salin town, passes through the town, and ultimately reaches the Paunglin lake. A very important scheme for utilizing the Mon river for irrigation purposes has recently been sanctioned. A weir is under construction in the Mon at Mezali, 34 miles from its mouth. By taking out a canal on each side, the work has been designed to irrigate both the northern and southern slopes of the valley down to the Irrawaddy, and thus to serve a total area of 120 square miles of very rich rice-growing soil. The cost of this scheme is estimated at 33½ lakhs. A certain amount of land is irrigated by small private canals and tanks. In 1903-4 about 17 square miles were watered by the former method. The Paunglin lake supplies about 1,600 acres of *mayin* rice.

The revenue obtained from leased fisheries amounted in 1903-4 to Rs. 24,800. Paunglin lake, the most important of these areas, is split up into five different sections; four are leased as fisheries, and in the other individual licences for catching fish are issued. Another fishery worthy of mention is the Kekkaya tank, just outside Legaing village.

Forests.

The total area of 'reserved' forest is 378 square miles, comprising 12 different tracts of hilly country, the most important of which are the Mon West Reserve (covering 93 square miles) and the Nwamadaung (covering 36 square miles). The former extends over elevated and precipitous uplands in the Arakan Yoma; the Nwamadaung lies farther to the east, also on high ground. An extension of the 'reserved' areas will soon be imperatively needed, for the forest tribes (practically all Chins) who live by *taungya*-cutting have carried that practice to such a stage as to threaten seriously the existence of valuable and climatically essential timber-grounds. The area of 'unclassed' forest is about 1,183 square miles, much of which is

merely scrub. A tract with a more valuable growth, containing teak and cutch, is drained by the Sin stream, and it has recently been proposed to reserve 30 square miles of this. Good timber occurs on the Podein branch of the Man and its tributaries, while in the higher parts of the 'unclassed' forest in the south-west of the District *Ficus elastica* yields india-rubber in paying quantities.

The chief trees of economic value in the 'reserved' forests are: *sha* (*Acacia Catechu*), yielding some of the best cutch obtainable in Burma; *kyun* or teak (*Tectona grandis*), found in all the Reserves, though not in great quantities; *padauk* (*Pterocarpus indicus*), the wood of which is in great request as material for cart-wheels; and bamboo, usually the *myinwa* (*Dendrocalamus strictus*). The wood of a large number of trees is used for house-building, most important among which are *ingyin* (*Pentacme siamensis*), *thitya* (*Shorea obtusa*), *in* (*Dipterocarpus tuberculatus*), and *kusan* (*Hymenodictyon thyrsiflorum*). Charcoal is burnt in certain localities from the *dahat* (*Tectona Hamiltoniana*) and *than* (*Terminalia Oliveri*), and wood varnish is extracted from the *thitsī*-tree (*Melanorrhoea usitata*) and used for lacquer. *Thitchabo*, the bark of *Cinnamomum zeylanicum*, is used medicinally for bruises and the like, and also chewed with betel. The fibre of the *shaw*-tree (*Sterculia*) and *gangaw* (*Mesua ferrea*) are obtained high up in the evergreen forest. Plantations of *Acacia Catechu* have been made with a view to increasing the yield of cutch, and more than 800 acres have been successfully planted. It is interesting to note that the pine (*Pinus Khasya*) is found on exposed ridges in the Mon West and Palaung Reserves, but that it is not worked either for its timber or its rich supplies of resin. Fire protection is at present attempted in the Mon West, the Tichaungywa, and the Pasu Reserves, and the protected area is being extended. The gross forest receipts in 1903–4 amounted to about Rs. 43,000.

The District contains no mines of importance. There are two steatite quarries, one of inferior quality near Ngape, the other near Pa-aing; the amount extracted in 1903 was 15 tons, valued at about Rs. 6,000. The steatite is dug out in blocks, brought to Pa-aing on pack-bullocks, and taken from there in carts to Sinbyugyun, where the blocks are sawn into slabs, which, in their turn, are converted into pencils used for writing on the black paper memorandum books known as *parabaiks*. The borings are from 90 to 100 feet deep. Laterite, clay, gravel, and sandstone are all worked to some extent. A thirty years' lease for the working of oil-wells in the Sagu and Minbu circles was granted to the Burma Oil Company in 1896, but the undertaking had eventually to be abandoned. There are a few salt-wells in Sidoktaya and Ngape, but the out-turn is insignificant. Talc, mica, and coal are all found in the District, but are not at present worked.

Trade and communications.

Minbu being pre-eminently an agricultural District, it is not surprising to find that arts and manufactures are few. One small oil refinery employing about half a dozen men at Taukshabin village, and a few aerated water factories employing about three men each, are the only approach to special industries the District can boast of. A little weaving is carried on in the town and villages for domestic consumption; there are a certain number of mat-weavers and potters, and a little cutch is boiled at Sidoktaya. At Thayetkyin, a small village near Salin, the people manufacture the rough black paper of which *parabaiks* are made; but even this industry is being driven out by the introduction of European paper. The arts are even worse represented. Sinbyugyun, where lacquer betel-boxes, brass bowls, and a little wood-carving are turned out, is the only place worthy of mention in this regard.

The few large traders in the District are mostly either Chinamen or natives of India. Minbu town in the south and Sinbyugyun in the north are the two main commercial centres. The chief exports are cutch, hides, sesamum seed and oil, gram, beans, and other kinds of agricultural produce; and the main imports are piece-goods, yarn, salted fish, *ngapi*, and, in years of scarcity, rice. The two principal routes for external trade are the Irrawaddy on the east and the An pass, which is reached by a track through Ngape, on the west. The latter is freely used by the pack-bullocks that ply between Kyaukpyu and the western portion of Minbu.

Internal traffic is mostly by road, and no railways have been constructed. A stretch of good metalled roadway, 9 miles long, connects Salin with the Irrawaddy, and a few short lengths of 2 or 3 miles each run out from Minbu town; but not a single highway has been metalled for any considerable length. The chief land communications are the chain of roads running from south to north from Thayetmyo to the Pakokku border, passing through Minbu, Sagu, Legaing, and Salin, by way of Sinbyugyun and Zibyubin; the road from Minbu to Ngape, by way of Singaung; and the road from Salin to Sun. A track from Salin to Sidoktaya is in course of construction. These are maintained by the Public Works department, but about 118 miles of road are kept up from the District fund, less than 4 miles being metalled. Merchandise is conveyed chiefly in bullock-carts, but where the roads fail in the west of the District pack-bullocks are used.

The chief waterways for internal traffic are the rivers Mon and Man. The Mon is navigable in the rains by 2-ton dug-outs up to the point where it enters the District. The Man is not navigable during the dry season at all, but in the rains boats can go as high as Aingma. The main waterway is, however, the Irrawaddy. Steamers of the

Irrawaddy Flotilla Company ply four times a week, carrying mails and passengers, twice up from Rangoon and twice down from Mandalay. The same company also runs a small steamer between Minbu and Thayetmyo, and a large number of cargo-boats. A steam ferry plies across the Irrawaddy between Minbu and Magwe, and there are other local ferries.

Famine.

Famine, in the worst sense of the word, is unknown in Minbu, though years of scarcity are not uncommon. Accidents to irrigation works, deficiency of rain, and cattle-disease cause distress; but agricultural loans relieve the strain, and emigration to Lower Burma acts as a safety-valve. In 1891-2 famine was declared, and relief works were started; but with rain in the latter part of the year and a flow of imported rice from Lower Burma the distress quickly subsided, and later, when a new relief work was opened, not a person volunteered for labour on it. A District in which so many kinds of 'dry crops' are grown is always to some extent armed against drought; and it is estimated that, even in the event of a serious famine, the maximum number of persons who would require daily relief would not exceed 15,000.

Administration.

For purposes of administration the District is divided into two subdivisions: Minbu, comprising the townships of SAGU, LEGAING, and NGAPE; and Salin, comprising those of SALIN and SIDOKTAYA. Minbu is the head-quarters of the Commissioner of the Division[1]. The Public Works department is represented by two Executive Engineers, one in charge of the Mon canals and another in charge of the Salin irrigation subdivision. For ordinary public works the District forms a subdivision of the Thayetmyo Public Works division. There is a Deputy-Conservator of forests at Minbu, who is also in charge of the Magwe forests. The total number of village headmen is 458.

The District, subdivisional, and township courts are ordinarily presided over by the respective executive officers. The head-quarters magistrate at Minbu, however, acts as additional judge of the District court, and there is an additional judge in the Salin township court. The indigenous population are on the whole law-abiding, and not as a rule litigious.

Before annexation, revenue in Upper Burma was raised by a fixed lump assessment on every town (*myo*), and was collected in kind by the town-headman (*myo-wun*), who sold the produce thus collected, and forwarded to the court officials the whole or so much of the proceeds as he thought would content them. The *thathameda* tax, the chief source of revenue, was introduced by king Mindon, and at

[1] The transfer of the head-quarters to Magwe has been sanctioned, and will probably take place shortly.

first stood at Rs. 3 per household. Subsequently it was raised until it reached an average of about Rs. 10. Along the Mon valley the tax seems to have been treated as a tax partly on households and partly on land, the average rate being Rs. 10. Every household was assessed, in the first instance, at only Rs. 5, the balance varying according to the quantity and quality of the land worked by the taxpayer. A direct land tax was also levied on certain kinds of state land: namely, irrigated and *mayin* (hot-season) rice lands, some *kyun* (island) and *kaing* (alluvial) lands, and certain lands devoted to the upkeep of pagodas and other religious property. Irrigated state land paid much the same proportion of out-turn in revenue as non-state land paid in rent to the local landlords. In Salin the amount was usually one-half or one-third, in Sagu and Legaing one-half to one-fourth. *Mayin* rice lands paid sometimes one-fifth of their out-turn, and sometimes Rs. 10 per 10 *saiks* (about 2 acres). *Kyun* lands were variously assessed; and alluvial lands, if of good quality, would pay about one-fifth; if poor, one-tenth of their produce.

After annexation the Burmese methods of assessment were at first generally maintained; but in 1890 an *ad interim* system was introduced under which Government dealt direct with the cultivators, instead of through officials like the *myo-wuns*, and the rate at which rice was to be commuted was fixed annually by the Deputy-Commissioner according to market rates. Lump-sum assessments and acre rates were abolished, the *kan* (roughly 75 square cubits) was taken as the unit, and rates were raised all round. At the same time crop out-turns were measured, and statistics collected as to the cost of cultivation, with the result that in the following year (1891–2) the rates were generally reduced. By 1893 the cadastral survey of most of the District was completed, and in that year regular settlement operations were started. They were finished by the end of 1897, but did not include the townships of Ngape and Sidoktaya, which were summarily settled in 1901. As a result the main rates, as finally sanctioned for five years in 1899, were as follows: irrigated rice, Rs. 2 to Rs. 7 per acre; alluvial rice (*taze*), R. 1 to Rs. 4–8; hot-season rice, Rs. 4; unirrigated rice, Rs. 1–8 or Rs. 2–8. Alluvial crops other than rice pay from Rs. 2 to Rs. 7, and upland (*ya*) crops are assessed at rates varying from 4 annas to Rs. 1–8 per acre. These figures all refer to state land; other land pays three-fourths of these rates. The average size of a holding (including fallows) is—for irrigated rice, $7\frac{1}{2}$ acres; for *taze* rice, $5\frac{3}{4}$ acres; for *mayin* rice, $2\frac{1}{2}$ acres; for *mogaung* rice, $6\frac{1}{2}$ acres; for *ya* crops, $8\frac{1}{2}$ acres; and for alluvial (*kaing*) crops, $5\frac{1}{4}$ acres.

As the result of the summary settlement of the Ngape and Sidoktaya townships in 1901, the rate for irrigated rice has been fixed at Rs. 4

or Rs. 3, according to the quality of the soil, while unirrigated rice pays Rs. 2, *ya* land from 8 annas to R. 1, and alluvial crops from R. 1 to Rs. 5 per acre. The average size of a holding in the summarily settled tract is—for rice land, 4 acres; for gardens, $1\frac{1}{2}$ acres; and for *ya* land, 7 acres.

The following table shows the fluctuations in the revenue since 1890–1, in thousands of rupees:—

	1890-1.	1900-1.	1903-4.
Land revenue . .	90	4,13	4,04
Total revenue . .	...	...	7,70

The large increase in land revenue between 1890–1 and 1900–1 is due to the settlement. *Thathameda* fell, on the introduction of acre rates, from 4 lakhs in 1890–1 to Rs. 2,41,000 in 1900–1, but rose to Rs. 2,58,000 in 1903–4.

The income of the District fund in 1903–4 was Rs. 27,000, half of which was spent on public works. There are two municipalities in the District, those of MINBU and SALIN.

For police purposes the District is in charge of a District Superintendent, and is divided into two subdivisions which are under an Assistant Superintendent or an inspector. The strength of the force is 3 inspectors, 13 head constables, 34 sergeants, and 429 constables; and there are 11 police stations and 13 outposts. The contingent of military police belongs to the Magwe battalion, and consists chiefly of Sikhs and Punjābis with an admixture of Karens. The sanctioned strength is 5 native officers and 180 rifles, of whom 3 native officers and 110 rifles are stationed at Minbu, and the remainder at Salin and Pwinbyu. Minbu no longer contains a jail, and convicts are sent to Magwe.

The District, in spite of its large total of Chins, who are practically all uneducated, had in 1901 the largest proportion of males able to read and write in the Province, namely 53·3 per cent., a result which is largely the outcome of the energy of the local monastic teachers. For the population as a whole, male and female, the proportion was 27·3 per cent. The number of pupils in public and private schools was 3,417 in 1891 and 7,793 in 1901, and the proportion to the total population of school-going age in the last-named year was estimated at 25 per cent. In 1904 there were 9 secondary, 167 primary, and 419 elementary (private) schools, with an attendance of 7,896 (including 349 girls). Of lay institutions, the most important is the Government high school at Minbu. The total educational expenditure in 1903–4 amounted to Rs. 21,000, of which Rs. 3,000 was derived from fees, and the rest from Provincial funds.

Minbu and Salin possess hospitals, and there is a small dispensary at Sinbyugyun, at the mouth of the Salin river. The two hospitals have accommodation for 50 in-patients, of whom 508 were treated in 1903, the total number of out-patients during the same year being 15,303, and that of operations 242. Towards their combined income of Rs. 8,300 the two municipalities contributed Rs. 3,900, Provincial funds Rs. 3,700, and private subscribers Rs. 600. The dispensary at Sinbyugyun is maintained wholly from Provincial funds.

Vaccination is compulsory only within the two municipalities. In 1903-4 the number of persons successfully vaccinated was 5,496, representing 24 per 1,000 of population.

[O. S. Parsons, *Settlement Report* (1900).]

Minbu Subdivision.—Southern subdivision of Minbu District, Upper Burma, comprising the SAGU, LEGAING, and NGAPE townships.

Minbu Town.—Head-quarters of the Division and District of the same name in Upper Burma, situated in 20° 10′ N. and 94° 53′ E., among typical dry zone surroundings on the right bank of the Irrawaddy, almost immediately opposite the town of Magwe[1]. The town has several prominent features. On the north is a large pagoda known as the Red Pagoda; on the west a sharply defined conical eminence, capped by a pagoda, stretches at right angles to a low range of hills running north and south; on the south another hill rises abruptly from the river bank, similarly crowned with pagodas, and topped by a lofty wooden spire erected over an impression of a foot. It is known as Buddha's Foot Hill. The natural southern boundary of Minbu is the Sabwet stream, a sandy nullah communicating with the Irrawaddy about 200 yards south of the last-named shrine. The town is divided into two parts by a small creek called the Dok. The northern or native portion lies near the Irrawaddy, and is usually flooded on the rise of the river. The Deputy-Commissioner's court lies to the south, between the Dok and the southern portion of the town, which stands considerably higher and is not liable to flooding. In this southern area is situated the civil station, with the club, several of the Government offices and the residences of the local officers for the most part standing up on high ground well above the river bank. Minbu was a small fishing village previous to the annexation of Upper Burma in 1885, but became an important base of operations in 1886, and since then has always been the head-quarters of the District. Its population was 7,270 in 1891, and 5,780 in 1901, having, like Salin, Magwe, Yenangyaung, and other towns in the dry zone, decreased during the decade. The people are occupied mainly in river business, trading, and fishing. A fair amount of trade passes through

[1] The transfer of the Divisional head-quarters to Magwe has been sanctioned, and will probably take place shortly.

the town, and the steamers of the Irrawaddy Flotilla Company give regular communication with all ports on the Irrawaddy; but, like Myingyan, Minbu has suffered from the vagaries of the river, which has shown a tendency of late years to form sandbanks in the channel opposite the regular steamer *ghāt*. In the rains the Irrawaddy Flotilla steamers are able to come alongside the town, but during the dry season they have to anchor at a village 2 miles to the south.

A municipal council was formed in 1887 and reconstituted in 1901. The income and expenditure during the ten years ending 1901 averaged nearly Rs. 17,000. In 1903-4 the income was Rs. 21,000, bazar rents contributing Rs. 9,000; and the expenditure was Rs. 19,000, the chief items being conservancy and roads (Rs. 5,000 each). The town hospital contains 28 beds, and 310 in-patients and 8,300 out-patients were treated at it in 1903. The Government high school has a steadily increasing attendance, and boys come to it from all parts of Minbu and Magwe Districts.

Minbya Subdivision.—Subdivision of Akyab District, Lower Burma, consisting of the PAUKTAW and MINBYA townships.

Minbya Township.—Eastern township of Akyab District, Lower Burma, lying between 20° 2′ and 20° 35′ N. and 93° 7′ and 93° 43′ E., on the western edge of the Arakan Yoma, with an area of 480 square miles. The population was 35,505 in 1891, and 41,663 in 1901, consisting largely of Chins. There are 295 villages. The head-quarters are at Minbya (population, 1,322), on a branch of the Lemro river. The area cultivated in 1903-4 was 104 square miles, paying Rs. 1,33,000 land revenue.

Minchinābād Tahsīl.—Head-quarters *tahsīl* of the *nizāmat* of the same name, Bahāwalpur State, Punjab, lying on the left bank of the Sutlej, between 29° 53′ and 30° 25′ N. and 73° 2′ and 73° 58′ E., with an area of 603 square miles. The population in 1901 was 72,272, compared with 68,070 in 1891. It contains the town of MINCHINĀBĀD (population, 2,558), the head-quarters; and 235 villages. The *tahsīl* lies for the most part in the lowlands of the Sutlej valley. The land revenue and cesses in 1905-6 amounted to 2·1 lakhs.

Minchinābād Town.—Head-quarters of the *nizāmat* and *tahsīl* of the same name in Bahāwalpur State, Punjab, situated in 30° 10′ N. and 73° 34′ E., on the Southern Punjab Railway, in the north-eastern corner of the State. Population (1901), 2,558. It was named after the late Colonel Charles Minchin, Political Agent in Bahāwalpur, 1866-76. The town contains a dispensary, has a large manufacture of saltpetre, and is a great centre of the export trade in grain. The municipality had an income in 1903-4 of Rs. 6,100, chiefly from octroi.

Mindon.—Western township of Thayetmyo District, Burma, lying between 19° 3′ and 19° 30′ N. and 94° 30′ and 94° 56′ E., with an

area of 708 square miles. The township, which is undulating in the east and hilly in the Arakan Yoma country in the west, contains 251 villages. It had a population of 35,040 in 1891, and 30,350 in 1901. Emigration to the more fertile lands of the delta accounts for the falling off during the decade. The head-quarters are at Mindon, a village of 803 inhabitants, picturesquely situated on the Maton river within a few miles of the Arakan Hills. The total number of Chins is about 4,000. They inhabit the Arakan Yoma, which covers the western half of the township. About 35 square miles were cultivated in 1903–4, paying Rs. 29,000 land revenue.

Mingin Subdivision.—South-eastern subdivision of the Upper Chindwin District, Upper Burma, containing the MINGIN and KYABIN townships.

Mingin Township.—South-eastern township of the Upper Chindwin District, Upper Burma, lying on either side of the Chindwin river, between 22° 36′ and 23° 12′ N. and 94° 22′ and 94° 55′ E., with an area of 1,311 square miles. It consists throughout of low hills. The population, which is almost wholly Burman, was 21,015 in 1891, and 19,941 in 1901, distributed in 141 villages. The head-quarters are at Mingin (population, 1,815), on the Chindwin river, about 80 miles below Kindat. The villages lie on the Chindwin and its tributaries, the Maukkadaw stream on the north and the Patolin on the south. The area cultivated in 1903–4 was 37 square miles, and the land revenue and *thathameda* amounted to Rs. 42,000.

Minhla Subdivision.—Subdivision of Thayetmyo District, Burma, consisting of the MINHLA and SINBAUNGWE townships.

Minhla Township (1).—Northernmost township of Thayetmyo District, Burma, lying between 19° 30′ and 19° 59′ N. and 94° 24′ and 95° 12′ E., and extending from the Irrawaddy to the Arakan Yoma in the west, with an area of 490 square miles. It contains 290 villages, the most important of which is Minhla (population, 2,553), the head-quarters, on the right or west bank of the Irrawaddy close to the border of Minbu District. The population was 33,416 in 1891, and 42,120 in 1901. It is the only township of the District which has increased considerably in population during the past decade. There are nearly 6,000 Chins, who inhabit the hilly country to the west. East of the Yoma, towards the Irrawaddy valley, the country is cut up by many low hills. The area under cultivation in 1903–4 was 41 square miles, paying Rs. 36,000 land revenue. In 1902–3 capitation tax took the place of *thathameda* as the main source of revenue.

Minhla Township (2).—Central township of Tharrawaddy District, Lower Burma, lying between 17° 53′ and 18° 20′ N. and 95° 37′ and 96° 4′ E., and stretching from the Pegu Yoma westward to the

border of the Monyo township, with an area of 627 square miles, for the most part flat and fertile. In 1891 the population was 75,068, and in 1901 86,939. MINHLA (population, 3,537) is the head-quarters, and the only town. The number of villages is 468. The area cultivated in 1903-4 was 177 square miles, paying Rs. 2,42,000 land revenue.

Minhla Town.—Head-quarters of the township of the same name in Tharrawaddy District, Lower Burma, situated in 18° N. and 95° 44′ E., near the centre of the District on the Rangoon-Prome railway, 91 miles from Rangoon. Population (1901), 3,537. The town is administered by a town committee, which consists of five members. In 1903-4 the income of the town fund was Rs. 15,400, and the expenditure Rs. 14,700.

Minicoy.—An island attached to the District of Malabar in the Madras Presidency, lying in the Arabian Sea, in 8° 18′ N. and 73° E. The lighthouse on the southern end was finished in 1885. Politically Minicoy appertains to the LACCADIVE group, but ethnologically and geographically it belongs to the Maldive Islands. It is 6 miles long by half a mile in breadth, and contains an area of about 1¾ square miles. Population (1901), 3,097. The physical characteristics of Minicoy are similar to those of the other Laccadive Islands; but it contains no *tottam*, or garden cultivation, and the coco-nut trees are smaller, and there is more jungle interspersed among the plantations.

The people are probably of Singhalese extraction; they are darker and smaller than the other islanders; their language is Mahl, and they have a duodecimal numerical system. Though Muhammadans, they are strictly monogamous, and the women take the lead in everything except navigation. A girl's consent has to be obtained before marriage, and she brings no dowry, but receives presents from the bridegroom. There are three subdivisions among the people—the Mālikhans, the Mālumis or Takkarus, and the Kohlus—which correspond to the three found on the other islands; but, unlike the other islanders, the Minicoy people are all congregated in one village, which is divided into ten quarters or wards, in each of which the male and female populations are organized into separate clubs, each managed by its own headman or headwoman and forming a unit for social and political purposes. The fishing-boats are very well made, and the men are expert navigators. The islanders' chief trouble is the food-supply. All the rice has to be imported, and the trade is practically monopolized by the chief Mālikhans. The revenue is raised by a poll-tax and taxes on fishing-boats, &c., and not by a monopoly as in the other islands. Minicoy came into the possession of the Alī Rājā of Cannanore later than the other islands, probably not

till the middle of the fifteenth century, as a gift from the Sultān of the Maldives, and this accounts for the difference in its administration[1].

Mirāj State (Senior Branch).—State under the Political Agent of Kolhāpur and the Southern Marāthā Country, Bombay, with an area of 339 square miles. It consists of three divisions: a group of villages in the valley of the Kistna, a second group in the south of Dhārwār District, and a third in the midst of Sholāpur District. The State contains 5 towns, the chief being MIRĀJ (population, 18,425), the head-quarters, and LAKSHMESHWAR (12,860); and 59 villages. The population in 1901 was 81,467, Hindus numbering 68,660, Muhammadans 8,778, and Jains 3,866. The portion of the State which is watered by the Kistna is flat and rich; the remaining parts lie low and are surrounded by undulating lands and occasionally intersected by ridges of hills. The prevailing soil is black. Irrigation is carried on from rivulets, tanks, and wells. As in the rest of the Deccan, the climate is always dry, and is oppressively hot from March to May. The principal crops are millet, wheat, gram, sugar-cane, and cotton. Coarse cotton cloth and musical instruments are the chief manufactures.

Mirāj was originally a portion of SĀNGLI, from which it was detached in 1808. In 1820 it was, with the sanction of the British Government, divided into four shares, and the service of horsemen was proportioned to each. Two of these shares lapsed in 1842 and 1845 from failure of male issue; the two others remain. The whole area of the State has been surveyed and settled. The chief ranks as a first-class Sardār in the Southern Marāthā Country. He has power to try his own subjects for capital offences. The revenue in 1903–4 was $3\frac{1}{2}$ lakhs, of which 2·7 lakhs was from land. Tribute of Rs. 12,558 is payable to the British Government. The family holds a *sanad* authorizing adoption, and follows the rule of primogeniture in matters of succession. Of the five municipalities in the State, Mirāj and Lakshmeshwar have incomes of Rs. 15,500 and Rs. 7,000 respectively. There are 25 schools with 1,237 pupils. The police force numbers 235 men, maintained in 1903–4 at a cost of Rs. 23,400. There are three jails, with a daily average of 55 prisoners. The State contains three dispensaries, which afforded relief to 35,371 persons in 1903–4. In the same year 1,789 persons were vaccinated.

Mirāj Town.—Capital of the State of Mirāj (Senior Branch) in the Southern Marāthā Country, Bombay, situated in 16° 49′ N. and 74° 41′ E., near the Kistna river, a few miles south-east of Sāngli. Population (1901), 18,425. In 1761 the fort of Mirāj with some

[1] An interesting account of Minicoy (Marco Polo's 'Female Island') is to be found in *Blackwood's Magazine* for February and March, 1889.

thānas was assigned by the Peshwā Mādhu Rao to Govind Rao Patvardhan for the maintenance of troops. Mirāj is a large trading town, with two old *dargāhs*, built in 1491. It is administered as a municipality, with an income in 1903–4 of Rs. 15,500. It contains a high school and a dispensary.

Mirāj State (Junior Branch).—State under the Political Agent of Kolhāpur and the Southern Marāthā Country, Bombay, with an area of 211 square miles. It consists of three divisions: a group of villages adjoining the Bankāpur *tāluka* of Dhārwār District; a second near the Tāsgaon *tāluka* of Sātāra District; a third near the Pandharpur *tāluka* of Sholāpur District, which also includes four *inām* villages in Poona District. There are 3 towns, the largest being Bhudgaon (population, 3,591), where the chief resides; and 31 villages. The population in 1901 was 35,806, Hindus numbering 32,484, Muhammadans 2,034, and Jains 1,288. The soil is generally black. Indian millet, wheat, gram, and cotton are the chief crops; and coarse cotton cloth is the principal manufacture. The history of this branch of the family is the same as that of the Senior Branch, given above. The chief ranks as a first-class Sardār in the Southern Marāthā Country, and has power to try his own subjects for capital offences. The family holds a *sanad* authorizing adoption, and follows the rule of primogeniture in matters of succession. The estimated revenue is about 4 lakhs, and the expenditure nearly 3 lakhs. Tribute of Rs. 6,412 is payable to the British Government. The police force numbers 143. In 1903–4 there were three jails, with a daily average of 23 prisoners. There are 30 schools in the State, attended by 991 pupils. Two dispensaries treat about 14,500 persons. In 1903–4 about 800 persons were vaccinated.

Miram Shāh (*Mīran Shāh*).—Head-quarters of the Northern Wazīristān Agency, North-West Frontier Province, situated in 33° 57′ N. and 70° 7′ E., in Daur (the Tochi valley), about 57 miles west of Bannu. Its elevation is 3,050 feet above the sea, and it comprises three or four hamlets. It is now garrisoned by the Northern Wazīristān militia.

Mirānpur.—Town in the Jānsath *tahsīl* of Muzaffarnagar District, United Provinces, situated in 29° 17′ N. and 77° 57′ E., 20 miles from Muzaffarnagar town. Population (1901), 7,209. It is the home of a family of Saiyids, descended from a member of the Chhatrauri branch of the famous Bārha Saiyids. Early in 1858 it was attacked by the Bijnor rebels, but successfully held by British troops. Mirānpur is administered under Act XX of 1856, with an income of about Rs. 2,000. At one time there was a large local trade in rice, sugar, salt, and grain; but the opening of the railway has diverted trade to Khataulī and Muzaffarnagar. Blankets are still made to a large extent.

and also coarse blue pottery and papier mâché goods. There are two small schools.

Mīrānpur Katra.—Town in Shāhjahānpur District, United Provinces. *See* KATRA.

Mīran Shāh.—Head-quarters of the Northern Wazīristān Agency, North-West Frontier Province. *See* MIRAM SHĀH.

Mīrānzai.—*Tahsīl* and town in Kohāt District, North-West Frontier Province. *See* HANGU.

Mīrganj Tahsīl.—West-central *tahsīl* of Bareilly District, United Provinces, comprising the *parganas* of Shāhī, Siraulī (North), and Ajaon, and lying between 28° 24′ and 28° 41′ N. and 79° 6′ and 79° 24′ E., with an area of 149 square miles. Population increased from 95,300 in 1891 to 103,198 in 1901. There are 158 villages and one town, Shāhī (population, 3,556). The demand for land revenue in 1903–4 was Rs. 1,50,000, and for cesses Rs. 26,000. The density of population, 640 persons per square mile, is below the District average. The shifting channel of the Rāmgangā winds through the south of the *tahsīl*; and the Dhakrā, Dhorā, and West Bahgul, after flowing from the northern border, unite to form the Dojorā. Mīrganj is a level well-cultivated plain, the greater portion of which is sufficiently moist not to require artificial irrigation. It produces sugar-cane largely, and sugar is refined in many places. In 1903–4 the area under cultivation was 111 square miles, of which 17 were irrigated. Tanks or *jhīls* supply more than half the irrigated area. The new dam across the Kūlī Nadī will supply irrigation to the north of this *tahsīl*.

Mīrganj Town.—Town in the Gopālganj subdivision of Sāran District, Bengal, situated in 26° 25′ N. and 84° 20′ E. Population (1901), 9,698. It is a large trading centre.

Mīri Hills.—A section of the Himālayan range lying north of Lakhimpur District, Eastern Bengal and Assam, between the hills occupied by the Gallongs and the Rangānadī, and inhabited by the Mīri tribe. The Mīris are of Tibeto-Burman origin, and have tall, well-developed frames, with pleasant countenances of the Mongolian type. Unlike their neighbours they have never given trouble to the British Government, and large numbers of the tribe have now settled on the Assam plains. A full account of the Mīris will be found in Colonel Dalton's *Ethnology of Bengal*.

Mirialguda.—Southern *tāluk* of Nalgonda District, Hyderābād State, separated from the Guntūr District of Madras by the Kistna river. Till 1905 it was also called Devalpalli. Including *jāgīrs*, the population in 1901 was 78,545, and the area 768 square miles. The population in 1891 was 87,130, the decrease being due to the transfer of villages. The *tāluk* contains 154 villages, of which 4 are *jāgīr*, and Mirialguda (population, 3,660) is the head-quarters. The land

revenue in 1901 was 2·4 lakhs. Rice is extensively irrigated from tanks, channels, and wells. The new *tāluk* of Pochamcherla, constituted in 1905, received 35 villages from Mirialguda.

Mirjān.—Village in the Kumta *tāluka* of North Kanara District, Bombay, situated in 14° 30′ N. and 74° 28′ E., about 5 miles north of Kumta town. Population (1901), 1,500. It has a ruined fort said to have been built by Sarpān Malik, probably a reminiscence of the Bijāpur title Sharīf-ul-mulk. Mirjān has been supposed to be the ancient Muziris mentioned by Pliny as the first trading town in India; but an alternative is to be found in Muyiri, the old name of Cränganūr, 20 miles north of Cochin. Under the Vijayanagar kings Mirjān was held by local tributary chiefs. Albuquerque visited it in 1510. It subsequently passed to Bijāpur, and later to the Bednur chief Sivappa Naik. The Marāthās seized it in 1757. It suffered from the depredations of Haidar, and was destroyed by Tipū. Fryer visited Mirjān in the seventeenth century, and has recorded a description of it.

Mīrpur Subdivision.—Subdivision of Sukkur District, Sind, Bombay, consisting of the MĪRPUR MĀTHELO and UBAURO *tālukas*.

Mīrpur Town.—Town in the Bhimber district of the Jammu province, Kashmīr, situated in 33° 11′ N. and 73° 49′ E., at an elevation of 1,236 feet above sea-level. It lies 22 miles north of the British cantonment of Jhelum, and is said to have been founded about 200 years ago by the Gakhars, Mīrān Khān and Sultān Fateh Khān. It stands on high ground on the edge of the Kareli Kas, from which drinking-water is easily procured. There are several rather picturesque temples, the chief being the Sarkāri Mandir, built by Mahārājā Gulāb Singh; the Raghunāthji; and the temple of Dīwān Amar Nāth. The town contains 550 shops, forming a long bazar running east and west. Apart from the shop-keeping class, Brāhmans and Sikhs, of whom many are settled in Mīrpur, the inhabitants are mostly of the artisan or menial classes. There is a flourishing State school badly housed, and a dispensary in a building wholly unsuited to the purpose. The town has a neglected appearance. The streets are badly laid, dirty, and undrained, and no attempts have been made at conservancy. Trade is brisk. It is mostly in the hands of Mahājans and Khattrīs. The chief articles of export to British India are grain, *ghī* from the hills and Pūnch, and minor forest products from Kotli, Pūnch, and Rājauri; the chief imports are salt, cloth, tea, and sugar.

Mīrpur Batoro.—*Tāluka* of Karāchi District, Sind, Bombay, lying between 24° 36′ and 25° 1′ N. and 68° 9′ and 68° 26′ E., with an area of 269 square miles. The population in 1901 was 37,116, compared with 35,196 in 1891, dwelling in 62 villages, of which Mīrpur Batoro is the head-quarters. The density is 138 persons per square mile, and this is the most thickly populated *tāluka* in the District. The land

revenue and cesses in 1903–4 amounted to over 1·4 lakhs. The *tāluka* lies on the east of the Indus, which forms its northern boundary. It is shaped somewhat like a parallelogram, and is an alluvial plain, the northern portion being watered by canals fed directly by the Indus, and the central and southern parts by distributaries of the Pīnjari Mulchand canals. The finest rice, known as *sugdasi*, is grown here, owing to the soil being very fertile. *Jowār* and *bājra* are also grown.

Mīrpur Khās Tāluka.—*Tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 25° 12′ and 25° 48′ N. and 68° 54′ and 69° 16′ E., with an area of 457 square miles. The population rose from 27,866 in 1891 to 37,273 in 1901. The *tāluka* contains one town, MĪRPUR KHĀS (population, 2,787), the head-quarters; and 135 villages. The density, 82 persons per square mile, is the highest in the District. The land revenue and cesses in 1903–4 amounted to 3·3 lakhs. The *tāluka* is irrigated by canals, of which the chief is the Jāmrao. The Jodhpur-Bīkaner Railway traverses it.

Mīrpur Khās Town.—Head-quarters of the *tāluka* of the same name in Thar and Pārkar District, Sind, Bombay, situated in 25° 30′ N. and 69° 3′ E., on the Luni-Hyderābād branch of the Jodhpur-Bīkaner Railway, on the Let Wah canal, and also on the high road from Hyderābād to Umarkot, 38 miles south-east of Hāla, and 41 miles east-north-east of Hyderābād via Tando Alāhyār (17 miles distant). Population (1901), 2,787. The local trade is in grain, cotton (said to be the finest in Sind), and piece-goods, valued at 3·88 lakhs. The annual value of the transit trade is estimated at 25·67 lakhs. Mīrpur is a comparatively modern town, having been built in 1806 by Mīr Alī Murād Tālpur, and has increased in importance since the opening of the Jāmrao Canal in 1900. A new suburb is now being built on approved lines by the colonization officer of the Jāmrao Canal. It was the capital of Mīr Sher Muhammad Khān Tālpur, whose army was defeated in 1843 by Sir Charles Napier at Dabba (Dabo) near Hyderābād. The town was constituted a municipality in 1901, and had an income in 1903–4 of Rs. 13,000. It contains a dispensary and one primary school, attended by 84 pupils.

Mīrpur Māthelo.—*Tāluka* of Sukkur District, Sind, Bombay, lying between 27° 20′ and 28° 7′ N. and 69° 16′ and 70° 10′ E., with an area of 1,720 square miles. The population rose from 48,068 in 1891 to 49,991 in 1901. The *tāluka* contains 100 villages, of which Mīrpur Māthelo is the head-quarters. This is the most thinly populated tract in the District, with a density of only 29 persons per square mile. The land revenue and cesses in 1903–4 amounted to 2·2 lakhs. The *tāluka*, which produces mostly *jowār*, is watered by the Masa Wah. In the south lies a wide tract of sandy desert.

Mīrpur Sakro.—*Tāluka* of Karāchi District, Sind, Bombay, lying between 24° 14′ and 24° 51′ N. and 67° 9′ and 67° 55′ E., with an area of 1,137 square miles, of which nearly half is *kalar* land. The population in 1901 was 27,600, compared with 26,064 in 1891. There are 74 villages, but no town. The village of Mīrpur Sakro is the head-quarters. The land revenue and cesses in 1903-4 amounted to Rs. 60,000. The western half of the *tāluka* is almost entirely uninhabited and uncultivable. Towards the sea, tidal creeks break the coast-line and form extensive mangrove swamps. Irrigation is derived chiefly from the Baghar canal, with ten branches, and from two smaller canals. The chief crops are barley, rice, *bājra*, and *til*.

Mirta.—District and head-quarters thereof in Jodhpur State, Rājputāna. *See* MERTA.

Mirzāpur District.—District in the Benares Division of the United Provinces, lying between 23° 52′ and 25° 32′ N. and 82° 7′ and 83° 33′ E., with an area of 5,238 square miles. It is bounded on the north by Jaunpur and Benares; on the east by the Bengal Districts of Shāhābād and Palāmau; on the south by the Surgujā Tributary State and the State of Rewah; and on the west by Allahābād. The District of Mirzāpur extends over a larger area than any other in the United Provinces, except those situated in the Himālayas, and exhibits a corresponding diversity of natural features. The northern portion, with an area of about 1,100 square miles, forms part of the Gangetic plain, extending on either bank of the great river. South of the Ganges the outer scarp of the Vindhyas forms an irregular rampart, sometimes advancing to the bank of the Ganges, and sometimes receding to 10 miles or more away. The Vindhyan plateau stretches from the northern scarp for a distance of 30 or 40 miles to the Kaimurs, which look down on the valley of the Son. The eastern portion of the plateau forms part of the BENARES ESTATE, and a considerable area is set aside by the Mahārājā as a game preserve. The scenery in this tract is among the wildest and most beautiful in the District, and the portion where the hills meet the plains is especially picturesque. The Karamnāsā descends by a succession of falls, including two known as the Latīfsāh and Chhanpathar, which, from their beauty, are deserving of special notice. The tributary stream of the Chandraprabhā leaves the plateau by a single cascade, called Deo Dharī, 400 feet in height, whence it passes through a gloomy and precipitous gorge, 7 miles long, over a huge masonry dam to the open country beyond.

Physical aspects.

After passing the crest of the Kaimur hills, a more rugged, imposing, and elevated range than the Vindhyas, an abrupt descent of 400 or 500 feet leads down into the valley of the Son. The easiest

pass is the Kiwai *ghāt* above Mārkundī on the Ahraurā-Chopan road. The basin of the river lies at the foot of the hills, with occasional stretches of alluvial land on either bank. South of the Son is a wilderness of parallel ridges of rocky hills, of no great height, but exceedingly rugged and clothed with stunted forest. Excepting a few level patches and valleys, with the large basin of Singraulī in the south-west and the smaller area round Dūdhī in the south, hills cover the whole area.

The two main rivers are the Ganges and Son, which flow from west to east across the northern and central portions of the District respectively. The east of the Vindhyan plateau is drained by the Karamnāsā and its tributaries, the Garai and Chandraprabhā, and the centre by the Jirgo and small streams, all of which flow from south to north. The drainage from the northern slopes of the Kaimurs, however, passes into the Belan, which has a course from east to west. South of the Son the chief rivers are the Rihand and Kanhar, which flow north to join that stream. There are few lakes or marshes, Samdha Tāl, in the Korh *tahsīl*, being the largest.

Mirzāpur presents an unusual variety of geological formations. The northern portion is Gangetic alluvium, while the plateau which lies south of it consists of upper Vindhyan sandstone and shale. The lower Vindhyan series occupies the Son valley. It includes a compact limestone bed, 250 feet thick, with varying underlying beds of conglomerate, shale, carbonaceous beds, limestone, porcellanite, and glauconitic sandstones. On the south bank are beds of indurated highly siliceous volcanic ashes, while on the north limestones and shales belonging to the Kheinjua and Rohtās groups are found. The hilly tracts south of the Son consist of the Bijāwar slates, quartzites, limestones, basic volcanic rocks, and hematitic jasper. In the extreme south are found gneiss and the Gondwāna beds of shale, sandstone, and boulders. On the south-west border adjoining the Rewah State are the remains of an exhausted coal-mine[1].

The flora of the Gangetic valley presents no peculiarities. The area north of the river is well wooded, while trees become scantier as the hills on the south are approached. The eastern portion of the plateau has extensive areas of low jungle; but timber attains an average growth only in the remoter portions and in the game preserves. South of the Son the principal jungles are composed of *salai* (*Boswellia thurifera*), mixed with thorns and a few dwarfed trees. *Sāl* (*Shorea robusta*) is found in the hollows, and *khair* (*Acacia Catechu*) is common. In the extreme south the *sāl* is of better quality, but no forest land is 'reserved.'

[1] *Records, Geological Survey of India*, vols. v and vi; *Memoirs, Geological Survey of India*, vols. vii and xxxi.

Tigers are occasionally found in the preserves of Chakiā, and are more common over the whole tract south of the Son. They are also met with in the gorges of the Kaimurs near the Rewah boundary, and in parts of the plateau. Leopards are found over the whole District south of the Ganges. The hyena, wolf, jackal, and fox are common, and packs of wild dogs hunt the southern jungle. The sloth bear occurs on the Vindhyan plateau and on the Kaimurs. In the Ganges valley are found antelope, 'ravine deer' (gazelle), and *nīlgai*; while *sāmbar* and *chītal* are common in the preserves, and the four-horned antelope is met with occasionally. As a rule game-birds are scarce, aquatic species particularly so. Fish are common in the Ganges, and are largely caught. Mahseer are found in the Son and Belan.

The temperature of Mirzāpur is subject to smaller extremes than in the Districts farther west. The greatest heat is less, except where bare rock is found, and the cold season is also less marked. The climate is unhealthy at the commencement of the hot season and also at the end of the rains.

The annual rainfall averages about 41 inches, varying from 38 at Korh, north of the Ganges, to 45 at Robertsganj on the plateau.

History.

The early history of the greater part of the District is unknown, as no records exist of the rule of the aboriginal tribes, and their traditions are vague and unreliable. The Bhars once held the Ganges valley, and had a city near the present site of Bindhāchal. Eastward from Chunār the country was held by the Cherūs. The Soerīs, who are now almost extinct, were formerly powerful. In the south of the District the Kols and Kharwārs ruled in the forests. About the end of the twelfth century Rājput clans seized the whole District. Portions of the Gangetic valley fell into the hands of the Musalmāns a few years later; but little is heard of the District till the sixteenth century, when CHUNĀR became an important post in the wars between Humāyūn and Sher Shāh. The fort was held by the Pathāns for some time after the accession of Akbar. In the eighteenth century this area was included in the territory granted to the Nawāb of Oudh. In 1738 the governor of the *sarkārs* of Benares, Jaunpur, Ghāzīpur, and Chunār fell into disfavour and was replaced by Mansā Rām, who had been in his employment. Mansā Rām was succeeded by his son, Balwant Singh, Rājā of Benares, who rapidly extended his possessions and acquired the whole of the present District, except the fort at Chunār. At his death in 1770 the British compelled the Nawāb to recognize the succession of Chet Singh, an illegitimate son of Balwant Singh. In 1775 the Nawāb ceded sovereign rights to the British, who confirmed Chet Singh in full civil and criminal powers subject to the

payment of a fixed revenue. Chet Singh refused certain demands made by Warren Hastings in 1781, and an attempt to arrest him led to an *émeute* at Benares. Hastings, who had come to Benares, had to fly to Chunār and collect troops, who defeated Chet Singh's forces at Sīkhar Patīta and Latīfpur. Chet Singh took refuge in Bijaigarh, his stronghold on the Kaimurs, but again fled on the approach of the British. His estates were then conferred on Mahīp Nārāyan, a nephew of Balwant Singh. In 1788, owing to his misgovernment, Mahīp Nārāyan's private estates, comprising Korh and Chakiā, were separated from the rest of the District, which was brought under the ordinary administration. Its history is thenceforth a blank till the date of the Mutiny in 1857.

At first only a Sikh guard had charge of the treasury at Mirzāpur; but after the outbreaks at Benares on the 1st and at Jaunpur on the 5th of June, Colonel Pott arrived with part of the 47th Native Infantry. The Sikhs were called into Allahābād on the 8th; and next day, strong rumours of intended attacks by the rebels being current, all the officers, except Mr. Tucker, retired to Chunār. On the 10th Mr. Tucker attacked and defeated the insurgents; and on the 13th a detachment of the 1st Madras Fusiliers arrived at Mirzāpur, and destroyed Gaurā, a stronghold of the river dacoits. In the Bhadohī *pargana*, Adwant Singh, head of the Thākurs, rebelled, but was captured and hanged. The Thākurs vowed vengeance, attacked Mr. Moore, Deputy-Superintendent of the Benares Domains, at the Pālī factory, and on July 4 murdered him together with two planters, while endeavouring to make their escape. On June 26 the Bāndā and Fatehpur fugitives arrived and passed on to Allahābād. On August 11 the Dinapore mutineers entered the District, but were put to flight by three companies of the 5th Fusiliers, and left Mirzāpur at once. Kuar Singh, the rebel *zamīndār* of Shāhābād District, made an incursion on September 8 after his defeat at Arrah, but the people compelled him to pass on to Bāndā. On September 16, when the 50th Native Infantry mutinied at Nāgod, the officers and 200 faithful sepoys marched through Rewah to Mirzāpur. In January, 1858, Mr. Tucker led an expedition against Bijaigarh, drove the rebels across the Son, and re-established order, which was not again disturbed.

Some interesting cave-dwellings have been discovered on the scarp of the Kaimurs, the walls of which are occasionally adorned with rude drawings of the chase, while stone implements have been found on the floors[1]. Curious stone images of bearded men, supposed to be relics of Bhar rule, are found in the north of the District.

[1] *Journal, Asiatic Society of Bengal*, 1894, pt. iii, p. 21; *Journal, Royal Asiatic Society*, 1899, p. 89.

An interesting inscription of Lakhana Deva of Kanauj, dated in 1196, was dug up near AHRAURĀ. The most striking memorials of Muhammadan rule occur in the great fort of CHUNĀR, and the remains of ruined castles exist at various places on the Kaimurs.

Population.

Mirzāpur contains 7 towns and 4,257 villages. Population increased from 1872 to 1891, but the famine of 1896–7 caused a decrease in the next decade. The numbers at the four enumerations were as follows: (1872) 1,015,826, (1881) 1,136,796, (1891) 1,161,508, and (1901) 1,082,430. There are five *tahsīls*—MIRZĀPUR, CHUNĀR, ROBERTSGANJ, KORH, and CHAKIĀ—each named from its head-quarters. The principal towns are the municipality of MIRZĀPUR, the District head-quarters, which includes Bindhāchal, and the 'notified area' of CHUNĀR. The following table gives the chief statistics of population in 1901:—

Tahsīl.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Mirzāpur	1,185	2	964	332,340	281	− 10.7	14,986
Chunār	562	2	580	176,532	314	− 4.9	7,615
Robertsganj	2,621	2	1,222	221,717	85	− 8.3	4,408
Korh	296	1	1,076	285,240	720	− 2.1	9,662
Chakiā	474	...	415	66,601	141	− 6.1	2,054
District total	5,238	7	4,257	1,082,430	207	− 6.8	38,725

Of the total population, 93 per cent. are Hindus, and nearly 7 per cent. Musalmāns. North of the Ganges the density of population is very high; but the large area of jungle and rock in the centre and south of the District reduces the density elsewhere, and the Robertsganj *tahsīl* is one of the most thinly populated tracts in the Provinces. The boundary between the tracts where Eastern Hindī and Bihārī are spoken passes through the north of the District; but Eastern Hindī is the prevailing speech south of the Son. Bihārī is spoken by about 63 per cent. of the population, and Eastern Hindī by 36 per cent. The aboriginal tribes have largely given up their own tongues.

The principal Hindu castes are: Brāhmans, 153,000; Chamārs (leather-workers and cultivators), 134,000; Ahīrs (graziers), 102,000; Kurmīs (agriculturists), 64,000; Rājputs, 42,000; Kewats (cultivators), 40,000; and Koirīs (cultivators), 40,000. The District also contains a number of aboriginal tribes similar to those of Chotā Nāgpur and Central India, the most important of which are the Kols, 27,000; Majhwārs, 21,000; Kharwārs, 15,000; Bayārs, 12,000; and Cherūs, 6,000. These are rapidly becoming Hinduized. Among Muham-

madans the largest tribes and castes are: Julāhās (weavers), 20,000; Shaikhs, 13,000; Behnās (cotton-carders), 9,000; and Pathāns, 7,000. The high proportion of 71 per cent. of the total population are supported by agriculture, and only 4 per cent. by general labour.

Out of 413 native Christians in 1901, Congregationalists numbered 254 and members of the Anglican communion 93. The London Mission commenced work at Mirzāpur in 1837 and at Dūdhī in 1862. In 1897 a hospital and dispensary were founded at Kachhwā. The Church Missionary Society has a small branch at Chunār.

Agriculture.

The soils and consequently the agricultural conditions of the District present many diversities. In the Gangetic plain the usual loam and sandy and clayey soils are found, the first variety preponderating; and this area produces the ordinary crops—rice, gram, wheat, barley, and the millets. On the Vindhyan plateau the soil is a stiff and shallow red clay, giving only scanty crops, with generally two fallows intervening. *Kodon*, a small millet, is the chief crop grown here. A remarkable strip of fertile country, however, stretches across the District between the Belan and the base of the Kaimurs. The western portion, like the rest of the plateau, suffers from the lack of facilities for irrigation; but in the east the spring-level rises, and large quantities of rice are grown, while even sugar-cane and poppy succeed. The broad valley of the Son has a light sandy soil. In the tract south of this river cultivation is practically confined to four places—the Son, Kon, Dūdhī, and Singraulī valleys. Rice, *kodon* and other millets, wheat, and oilseeds are the principal crops grown here. Cultivation is largely fluctuating; and, excluding fields round the homesteads, lands are only cultivated once in three years. The custom of firing the jungle borders to obtain fertile land is still practised.

The *tahsīls* of Korh and Chakiā form part of the BENARES ESTATE, and the former includes a number of villages owned by sub-proprietors called *manzūrīdārs* or *mukarrarīdārs*. Excluding a few large estates held by single persons, in some of which sub-proprietary rights exist, and the Dūdhī *pargana*, the prevailing tenure is the ordinary *pattīdārī*. The Dūdhī *pargana* is almost entirely managed as a Government estate, and proprietary rights exist only in a small portion. The main agricultural statistics for 1903–4 are given in the table on the next page, in square miles.

The principal food-crops, with their areas in the same year, were—rice (163 square miles), gram (169), *kodon* (161), wheat (113), and barley (109). *Bājra*, *jowār*, and maize are also grown. Oilseeds (grown on 118 square miles), sugar-cane (10), and poppy (3), are of some importance.

The system of crop records has only recently been introduced into

the permanently settled Districts, and it is impossible to say whether cultivation is progressing or not, and what changes are taking place in agricultural methods. The changes, if any, have not been sufficiently important to attract attention. Advances are rarely made under the Land Improvement Loans Act, and only small amounts have been lent under the Agriculturists' Loans Act, amounting to Rs. 82,000 during the ten years ending 1900, of which Rs. 51,000 was advanced in 1896-7.

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Mirzāpur	1,185	429	45	413
Chunār	562	242	36	153
Robertsganj	2,621	255*	27*	225*
Korh	396	250	112	38
Chakiā	474†	109	27	24
Total	5,238	1,285	247	853

* These figures exclude the unsurveyed area south of the Son.
† Agricultural statistics available for only 160 square miles.

The cattle bred locally are very inferior; and animals are imported from Bihār for the plough, from the Districts north of the Gogra for other agricultural work, and from Surgujā for use as pack-animals. The buffaloes of the District are of a better stamp, and supply milk and are used for hauling stone. Ponies are also very inferior. Sheep and goats are largely kept, but no particular breeds are recognized.

Excluding the Benares Domains, 108 square miles were irrigated in 1903-4, of which 55 were irrigated from wells, 31 from tanks or *jhīls*, and 22 from other sources. The Gangetic valley is supplied chiefly by wells and *jhīls*. On the plateau wells are almost unknown, except in the fertile strip below the Kaimurs. Tanks and embankments are the usual means for the storage and supply of water here, and are extensively used for rice cultivation. The artificial lakes at Karsota on the plateau and at Gaharwārgaon south of the Son are the most important of these works. South of the Son the number of embankments approaches 900, but increased facilities for water-supply are still needed. The rivers are rarely used for irrigation; and there is only one small canal, made about 1820 by the Rājā of Benares, which supplies water from the Chandraprabhā.

The most important mineral product is building stone, which is largely quarried in the north of the District, and exported as far as Calcutta. Millstones, curry-stones, boundary pillars, and fencing posts are also made. The quarries are Government property and a royalty is levied, which yields about 1 lakh annually. Iron ore is found in places, and a little is worked by the aboriginal tribes for local use. Coal was formerly extracted south of the Son and carried on pack-bullocks to the river steamers at Mirzāpur, and as recently as 1896

an unsuccessful attempt was made to work it again. Mica and iron pyrites are also found, but are not used.

Trade and communications.

The District generally has few arts or industries, excluding those of the city of Mirzāpur. Cane sugar is produced north of the Ganges, and palm sugar near Chunār. Iron vessels are made at Kachhwā, lacquered wooden toys at Ahraurā, and an inferior art pottery at Chunār. The manufacture of indigo and weaving of *tasar* silk, which were formerly of some importance, have dwindled considerably; but the silkworm is still bred, and wild silk is also collected. South of the Son catechu is extracted in most villages. Mirzāpur city is one of the most important centres of brass manufactures in the United Provinces. It also contains large industries turning out shellac, lac-dye, and woollen carpets, besides a cotton-spinning mill.

The District exports stone, shellac, catechu, and other jungle produce, carpets, brass and iron utensils, grain, *ghī*, oilseeds, spices (chiefly betel-nuts), and raw silk; and imports brass, iron and copper, salt, cotton, and piece-goods. The chief channel for trade is now the railway, the Ganges being little used, except for the carriage of stone and fuel. Trade between the north and south of the District is carried entirely on pack-bullocks, and is decreasing owing to the establishment of markets outside the border. Mirzāpur, Kachhwā, and Ahraurā are the chief trading centres, while Chunār railway station is an important place for the export of stone.

The main line of the East Indian Railway passes through the District a little distance south of the Ganges, and the Oudh and Rohilkhand crosses the extreme north. There are 1,025 miles of road, of which 148 are metalled. The latter are maintained by the Public Works department, but the cost of all but 69 miles is met from Local funds. The main lines are the grand trunk road north of the Ganges, with branches from Mirzāpur city to several points on it; the great Deccan road; the road from Mirzāpur to Jaunpur; and the roads from Mirzāpur and Chunār to the south of the District. Avenues of trees are maintained on 123 miles.

Famine.

Local tradition tells of serious suffering in the northern parts of Mirzāpur during the great famine of 1783; but the District has usually escaped the worst degrees of famine. In 1864 and 1865 the rains were scanty and most of the rice crop perished, and revenue was freely suspended. In 1868 drought again caused distress, which deepened into famine in the southern part, though rain in September saved some of the late crops. Relief works were opened early in 1869, and provided work for all who came; ... remained in their jungles, living on forest produce.

head of cattle were lost owing to the failure of fodder and water, and small relief works were necessary. The great scarcity of 1877–8 was only slightly felt in this District. In 1896, however, the rainfall was short for the second year in succession, and the late rice and the following spring crops were lost. The Vindhyan plateau and the tract south of the Son suffered most severely; but some distress was also felt in the area between the Ganges and the plateau. North of the river high prices were the only inconvenience to the people. By June, 1897, there were 48,000 persons on relief works and 23,000 in poorhouses or receiving gratuitous relief. The Mahārājā of Benares spent 1·8 lakhs on relief in his estates.

Administration.

The Collector is usually assisted by a member of the Indian Civil Service, and by three Deputy-Collectors recruited in India. The Deputy-Superintendent of the Family Domains of the Mahārājā of Benares (*see* BENARES ESTATE) has his head-quarters at Mirzāpur, a *tahsīldār* is stationed at the head-quarters of each *tahsīl*, and there are two officers of the Opium department in the District.

Civil justice is in the hands of a Munsif, a Sub-Judge, and the District Judge, the latter being also Sessions Judge. In the two *tahsīls* of the Benares Estate all civil cases which are in any way connected with land, and all rent and revenue cases, are tried by the Mahārājā's courts with an appeal to the Deputy-Superintendent. The tract south of the Son is a separate non-regulation area, in which the *tahsīldār* of Robertsganj and the Collector and his Assistants have civil powers. Crime is light, especially in the jungle tracts.

Up to 1830 Mirzāpur formed part of BENARES DISTRICT, and most of it was thus permanently settled by 1795. A survey was carried out between 1839 and 1841, which was followed by the preparation of a record-of-rights. The District was again surveyed between 1879 and 1882; and the old record-of-rights, which had been of an imperfect nature and had never been corrected, was thoroughly revised for the area included in the Gangetic valley. In the two *tahsīls* belonging to the BENARES ESTATE the Mahārājā makes his own settlement with the subordinate proprietors. The Dūdhī *pargana* was for many years entirely overlooked by the British administrators, and it thus escaped the permanent settlement. The Rājā of Singraulī usurped the whole *pargana*, and complaints against his misgovernment led to its inspection in 1847. A formal inquiry was held, and it was declared to be the property of Government. A settlement was made in 1849–56, which was revised in 1871–5, 1886–7, and 1897–8. Proprietary rights in this *pargana* do not exist except in *tappa* Gondā Bajiā, and the assessment is based on the number of ploughs maintained by the cultivators. The area estimated to be cultivated by each plough is

fixed, and the rates per plough vary in different villages. The village headmen or *sapurdārs* receive concessions for their own cultivation, and also a percentage on collections.

The collections on account of land revenue and revenue from all sources have been, in thousands of rupees :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	8,56	8,86	9,65	8,44
Total revenue . .	11,71	14,90	16,28	16,70

The towns include one municipality, MIRZĀPUR, one 'notified area,' CHUNĀR, and four places administered under Act XX of 1856. Beyond the limits of these the District board administers local affairs. In 1903-4 the board had an income of 1·2 lakhs, chiefly derived from local rates, a contribution from Provincial revenues, and ferries; while the expenditure was 1·3 lakhs, including Rs. 55,000 spent on roads and buildings.

The District Superintendent of police has a force of 4 inspectors, 101 subordinate officers, and 1,446 constables, distributed in 26 police stations, besides 195 municipal and town police, and 1,500 rural and road police. In 1903 the District jail contained a daily average of 230 prisoners. The Provincial reformatory is now located in the fort at Chunār.

Mirzāpur District takes a fairly high place as regards the literacy of its population, of whom 3·6 per cent. (7 males and 0·3 females) could read and write in 1901. The number of public schools rose from 144 with 4,724 pupils in 1880-1 to 231 with 9,334 pupils in 1900-1. In 1903-4 there were 197 such schools with 7,914 pupils, including 291 girls, besides 55 private schools with 1,560 pupils, of whom 168 were girls. Only 1,941 pupils in both descriptions of schools were receiving secondary education. Four of the public schools are managed by Government and 115 by the District or municipal boards. Out of a total expenditure on education in 1903-4 of Rs. 91,000, Local funds supplied Rs. 47,000, and fees Rs. 8,000.

There are 11 hospitals and dispensaries, with accommodation for 75 in-patients. In 1903 the number of cases treated was 102,000, including 1,200 in-patients, and 7,800 operations were performed. The total expenditure was Rs. 24,000, chiefly met from Local funds.

About 34,000 persons were successfully vaccinated in 1903-4, representing a proportion of 31 per 1,000 of population. Vaccination is compulsory only in the municipality.

[A. Shakespear, *Selections from the Duncan Records* (Benares, 1873); *District Gazetteer* (1883, under revision); G. Dale, *Revision of Records in the Gangetic Valley, Mirzāpur District* (1887); W. Crooke and

G. R. Dampier, *A Note on the Tract of Country south of the River Son, Mirzāpur District* (1894).]

Mirzāpur Tahsīl.—Western *tahsīl* of Mirzāpur District, United Provinces, comprising the *tappas* of Upraudh, Chaurāsī, Chhiyānve, and Kon of *pargana* Kantit, and *tāluka* Majhwā of *pargana* Kaswār, and lying between 24° 36′ and 25° 17′ N. and 82° 7′ and 82° 50′ E., with an area of 1,185 square miles. Population fell from 372,015 in 1891 to 332,340 in 1901, the rate of decrease being the highest in the District. There are 964 villages and two towns, including MIRZĀPUR (population, 79,862), the District and *tahsīl* head-quarters. The demand for land revenue in 1903–4 was Rs. 3,21,000, and for cesses Rs. 68,000. The density of population, 281 persons per square mile, is above the District average. Most of the *tahsīl* is situated south of the Ganges, which forms part of the northern boundary and then cuts off a small portion on the north. The greater part of it is thus situated on the Vindhyan plateau, the southern portion of which is drained by the Belan. In the extreme south-west the Kaimur hills rise abruptly from the plateau. The area under cultivation in 1903–4 was 429 square miles, of which 45 were irrigated. Wells are the chief source of supply.

Mirzāpur City.—Head-quarters of Mirzāpur District, United Provinces, situated in 25° 9′ N. and 82° 35′ E., on the right bank of the Ganges, and on the East Indian Railway, 509 miles from Calcutta and 891 from Bombay, and connected by short branches with the grand trunk road. The population (including Bindhāchal) has fluctuated considerably. The numbers at the four enumerations were as follows: (1872) 67,274, (1881) 85,362, (1891) 84,130, and (1901) 79,862.

The earliest mention of Mirzāpur is by Tieffenthaler between 1760 and 1770, who refers to it as a mart on the Ganges. Its importance increased rapidly towards the close of the eighteenth century, and during the first half of the nineteenth century it was the most important trading centre in Upper India. Although the District was not separated from Benares till 1830, the town became the head-quarters of a Judge-Magistrate as early as 1788, and contained an important custom-house. The cotton of the Deccan and Central India was brought here on pack-bullocks and the grain of the Doāb in country boats, to be conveyed by river to Calcutta; while sugar, piece-goods, and metals were carried up stream for distribution. As the trade of the place depended largely on its position at the highest point on the Ganges reached by large steamers, the opening of the East Indian Railway as far as the Jumna opposite Allahābād in 1864 marked the first step in its decline. The town has a handsome river-front lined with stone *ghāts* or landing-places, and possesses numerous mosques, temples, and dwelling-houses of the wealthier merchants, with highly decorated façades and richly

carved balconies and door frames. The civil station stretches eastwards along the river. It is the head-quarters of the usual District staff, of the Deputy-Superintendent of the Family Domains (BENARES ESTATE), of two Opium officers, and also of the London Mission. There are male and female hospitals and a town hall, besides the usual public offices. Mirzāpur has been a municipality since 1867. During the ten years ending 1901 the income and expenditure averaged about Rs. 62,000. In 1903–4 the income was Rs. 83,000, chiefly derived from octroi (Rs. 69,000); and the expenditure was Rs. 67,000, including conservancy (Rs. 19,000), public safety (Rs. 12,000), administration and collection (Rs. 11,000), and public works (Rs. 10,000). A drainage scheme to cost 3·2 lakhs has recently been undertaken. The small town of Bindhāchal, a few miles south-west of the city, is included within municipal limits. It contains the celebrated shrine of Vindhyeshwarī or Vindhyabāsinī, which is annually visited by large crowds of pilgrims from Central and Southern India. In former years the goddess was especially venerated by the Thags. Close to Bindhāchal are found extensive ruins believed to be those of Pampāpura, the ancient city of the Bhars. Bindhāchal contains a dispensary. While Mirzāpur no longer holds its former importance as a centre of commerce, it still absorbs the greater part of the trade of the District. It is also the seat of the largest brass industry in the United Provinces, as far as the production of domestic vessels is concerned. There are eighty factories for the preparation of shellac from stick-lac found in the jungles of the south of the District or imported, which give employment to about 4,000 workmen. Mirzāpur is celebrated for the woollen carpets produced here, and six of the largest factories employ 700 to 800 hands. There is also a cotton-spinning mill, which employed 560 workers in 1903. The principal schools are the ordinary District and town schools, and a school and orphanage supported by the London Mission; the municipality maintains six and aids fifteen other schools, attended by 881 pupils.

Mishmi Hills.—A section of the mountain ranges on the northern frontier of Assam, which shut in the eastern end of the valley of the Brahmaputra, between the Dibāng and the Brahmaputra. These hills are occupied by the Mishmi tribe, and have never been properly explored. They consist, as far as is known, of steep ridges, covered as a rule with tree forest, and some of the peaks are over 15,000 feet in height. Geologically, these hills seem to be a continuation of the Burmese axials. The higher ranges are probably composed of gneiss and granite, and there are reasons for supposing that they may contain deposits of economic value. Limestone boulders are found in the beds of the rivers issuing from them.

The Mishmis are divided into four tribes: the Chulikāttā or 'crop-

haired,' the Bebejiya, the Digāru, and the Migu or Midhi. They are a short, sturdy race of the Tibeto-Burman stock, with features of a Mongolian type. They are keen traders and devoted to a pastoral rather than to an agricultural life, cattle and wives being the chief outward sign of wealth. The first expedition into the Mishmi country was in 1827, and further attempts were made in 1836 and 1845; but none of the explorers succeeded in getting more than three-quarters of the way to Rimā, the frontier town of Tibet. In 1851 M. Krick, a French missionary, reached that place and returned in safety to Assam; but on his revisiting the country in 1854 he was treacherously murdered by a Mishmi chief. The offender was captured and taken to Dibrugarh, where he was duly convicted and hanged; and attempts were again made in 1869 and 1879 to reach the valley of the Zayul, as the eastern arm of the Brahmaputra is called, but they were unsuccessful. In the cold season of 1885-6, Mr. Needham and Captain Molesworth marched from Sadiyā to Rimā, but were prevented from going beyond that place by the obstructive attitude of the Tibetan authorities. The path followed ran along the north bank of the Brahmaputra, the total distance traversed being 187 miles. For the first 46 miles it lies entirely in the plains, and for this portion of the journey elephants can be used for transport. From thence to the Tibetan border, 26 miles west of Rimā, travelling is somewhat difficult. The track is rugged and uneven, and crosses ranges of hills varying from 1,000 to 3,500 feet in height; but these difficulties disappear on entering the Zayul valley. The upper portion of this valley was described by M. Krick as a tract cultivated as far as the eye could see, and abounding in herds of oxen, asses, horses, and mules, and in groves of bamboo, laurel, orange, citron, and peach trees. Pandit A. K., who entered the valley from the east, described the winter crops as rice, millets, and pulses, while wheat, barley, and mustard ripened in the spring. The Mishmis do a good deal of trade both with the Zayul valley and with Assam. They receive from the Tibetans cattle, woollen coats, swords, metal vessels, and other articles, and give them in exchange Mishmi *teeta* (a plant much valued as a febrifuge), musk, and Mishmi poison.

In 1899 the Bebejiya Mishmis murdered three Khamti British subjects and carried off three children. An expedition was dispatched against them in the following cold season, which, after a tedious and difficult march, succeeded in recovering the captives and burning the guilty villages. The Bebejiya country lies to the east of the Dibāng river, and was entered by the Maizu pass, which is 8,900 feet above sea-level.

[An account of the Mishmis will be found in Colonel Dalton's *Ethnology of Bengal*.]

Misrikh.—Western *tahsīl* of Sītāpur District, United Provinces, comprising the *parganas* of Aurangābād, Chandra, Kaurauna, Gundlāmau, Machhrehta, Misrikh, and Maholī, and lying between 27° 12′ and 27° 49′ N. and 80° 18′ and 80° 50′ E., along the Gumtī, with an area of 613 square miles. The Kathnā traverses the north-west of the *tahsīl*, and the Sarāyān forms part of the eastern boundary. Population increased from 243,207 in 1891 to 267,440 in 1901. There are 649 villages and three towns, including Misrikh (population, 2,966), the *tahsīl* head-quarters. The demand for land revenue in 1903-4 was Rs. 3,88,000, and for cesses Rs. 66,000. The density of population is only 436 persons per square mile, a figure much below the District average. Along the Gumtī is found a considerable area of light sandy soil, which is liable to fall out of cultivation in years of either excessive or deficient rainfall. The rest of the *tahsīl* is composed chiefly of good loam. In 1903-4 the area under cultivation was 432 square miles, of which 94 were irrigated. Wells supply rather more than half the irrigated area, and tanks most of the remainder.

Mithankot.—Town in the Rājanpur *tahsīl* of Dera Ghāzi Khān District, Punjab, situated in 28° 57′ N. and 70° 22′ E., on the west bank of the Indus, 83 miles from Dera Ghāzi Khān town, and a few miles below the confluence of the Panjnad and Indus. Population (1901), 3,487. The town was once the centre of a large trade, and head-quarters of what is now the Rājanpur subdivision; but the station was abandoned in 1862, when the old town was destroyed by an encroachment of the Indus. The new town was built 5 miles from the river, but, being so far away, speedily lost the commercial importance of its predecessor. The municipality was created in 1873. The income during the ten years ending 1902-3 averaged Rs. 3,300, and the expenditure Rs. 3,500. In 1903-4 the income was Rs. 3,800, chiefly from octroi; and the expenditure was Rs. 3,500.

Mithi Tāluka.—*Tāluka* of Thar and Pārkar District, Sind, Bombay, lying between 24° 17′ and 24° 57′ N. and 69° 30′ and 70° 34′ E., with an area of 1,563 square miles. The population fell from 36,445 in 1891 to 26,154 in 1901. The *tāluka* contains one town, MITHI (population, 2,806), the head-quarters; and 46 villages. The density, 17 persons per square mile, is below the District average. The land revenue and cesses in 1903-4 amounted to Rs. 26,000. Cultivation depends upon rainfall, and to a small extent upon well-irrigation, the principal crop being *bājra*. The *tāluka* is liable to famine.

Mithi Town.—Head-quarters of the *tāluka* of the same name in Thar and Pārkar District, Sind, Bombay, situated in 24° 44′ N. and 69° 51′ E., about 60 miles south of Umarkot. Population (1901), 2,806. The trade, both local and transit, consists of grain, cotton,

cattle, camels, *ghī*, dyes, hides, oil, piece-goods, sugar, tobacco, and wool. The town was constituted a municipality in 1860, and had an average income of about Rs. 4,000 during the decade ending 1901. In 1903–4 the income was Rs. 10,000. The municipality was abolished in 1905. The town contains two primary schools, one for boys and the other for girls, attended respectively by 143 and 93 pupils.

Mithilā (or Videha).—Ancient kingdom in North Bihār, Bengal. It included the modern Districts of Darbhangā, Champāran, and North Muzaffarpur, and was a great seat of Sanskrit learning; it is mentioned in the *Satapatha Brahmana*. The capital was at Janakpur, in Nepāl; and the boundary seems at one time to have extended as far east as the Kosi river, so that the kingdom included, besides the Districts above named, parts of Purnea, Monghyr, and Bhāgalpur. According to tradition, the court of king Janaka was attended by philosophers and religious teachers as early as 1000 B.C. Little is really known of the early history of Mithilā. In the ninth century A.D. it seems to have been conquered by the Pāl dynasty of Magadha, and it was again subjugated by Ballāl Sen of Bengal soon after he ascended the throne in A.D. 1069. The Lakshman era, which he inaugurated to celebrate the birth of his son, is in use by the *pandits* of Mithilā to this day. Mithilā was conquered by Muhammad-i-Bakhtyār Khiljī in 1203, but from the middle of the fourteenth century it was for 200 years under the rule of a line of Brāhmans given up to learning and poetry. The best known of this line was Siva Singh, who reigned for four years from 1446. In 1556 Mithilā became merged in the Mughal empire. Mithilā has given its name to one of the five classes of Northern Brāhmans, the Maithilās, whose recognized head is the Mahārājā of Darbhangā.

Miyāgām.—Village in the Chorānda *tāluka*, Baroda *prānt*, Baroda State, situated in 22° 1′ N. and 73° 7′ E., on the Bombay, Baroda, and Central India Railway, at the terminus of a State line from Dabhoi. Population (1901), 2,654. It is inhabited chiefly by Jains, who carry on a thriving trade.

Mobye.—State in the Southern Shan States, Burma. *See* MÖNGPAI.

Modāsa.—Town in the Parāntīj *tāluka* of Ahmadābād District, Bombay, situated in 23° 18′ N. and 73° 18′ E., on the river Mājham, 52 miles north-east of Ahmadābād city. Population (1901), 7,276. Modāsa occupies an important strategical position between Gujarāt and the hilly tracts constituting the Native States of Idar and Dungarpur. In the reign of Sultān Ahmad of Gujarāt (1411–43) it was a fortified post; and at the close of the sixteenth century it was the chief place in a tract of 162 villages, yielding a revenue of 8 lakhs. It is an old town with several inscriptions. The chief industries are dyeing, calico-printing, and oil-pressing. *Mahuā* oil is exported for

soap. There is a through camel traffic in raw cotton and opium with Mālwā. Modāsa was constituted a municipality in 1859. The income during the decade ending 1901 averaged about Rs. 6,000, and in 1903-4 amounted to Rs. 6,800. The town contains a dispensary and five schools, of which one is an English middle school for boys with 22 pupils, and four are vernacular schools—namely, three for boys with 392 pupils and one for girls with 86 pupils.

Modhera.—Village in the Vadāvli *tāluka*, Kadi *prānt*, Baroda State, situated in 23° 35′ N. and 72° 8′ E. In ancient times this town must have been very populous and wealthy, judging from the ruins still to be seen. The chief of these is Sītā's Chāvdi or marriage hall, about which Dr. Burgess remarks:—

'The Sītā's Chāvdi is rich in carving beyond anything I have met with elsewhere. The central dome is supported by eight columns of great elegance with *toranas* between each pair, outside of which are eight similar ones. The *mandapa* is similar to the central dome. The proportions of the building are beautiful, as it is not deficient in height.'

The temple is really dedicated to the Sun, and was probably built early in the eleventh century. Modhera is known in Jain legends as Modherpura or Modhbank Pātan, and it has given its name to the Modha Brāhmans and the Modhas.

Moga Tahsīl.—*Tahsīl* of Ferozepore District, Punjab, lying between 30° 8′ and 30° 54′ N. and 74° 54′ and 75° 26′ E., with an area of 807 square miles. It is bounded on the south by Patiāla, and on the west by the Farīdkot State. It lies almost wholly in the upland plateau known as the Rohi, which has a good loam soil and is irrigated by the Sirhind Canal. The population in 1901 was 245,857, compared with 235,806 in 1891. MOGA TOWN (population, 6,725) is the head-quarters. The *tahsīl* also contains 202 villages. The land revenue and cesses in 1903-4 amounted to 4·7 lakhs. The village of MAHRĀJ is of some religious importance.

Moga Town.—Head-quarters of the *tahsīl* of the same name in Ferozepore District, Punjab, situated in 30° 49′ N. and 75° 10′ E., 35 miles south-east of Ferozepore town on the Ferozepore road. Population (1901), 6,725. The Tayyan fair is held here in the month of Chet (March-April). The chief educational institutions are the Dev Samāj Anglo-vernacular high school (unaided), and an Anglo-vernacular middle school maintained by the municipality. There is also a Government dispensary.

Mogalturru.—Village in the Narasapur *tāluk* of Kistna District, Madras, situated in 16° 25′ N. and 81° 36′ E., on the Narasapur canal. Population (1901), 6,348. It contains the fort of the former *zamīndārs* of Mogalturru, and was the head-quarters of one of the early Collectorates. There is a small salt factory close by.

Mogaung Subdivision.—Subdivision of Myitkyinā District, Upper Burma, consisting of the MOGAUNG and KAMAING townships.

Mogaung Township.—Western township of Myitkyinā District, Upper Burma, lying between 24° 42′ and 25° 45′ N. and 96° 0′ and 96° 16′ E., with an area of 3,490 square miles. The population in 1901 was 18,867, Shans numbering more than 8,000 and Kachins more than 7,000, while Burmans and Burmese Shans to the number of 2,000 inhabited Mogaung itself, and some of the larger river villages. The township contains 226 villages, of which 172 are in the Kachin Hill tracts. The head-quarters are at Mogaung (population, 2,742), a market of importance situated on the Mogaung stream and the railway, about 30 miles west of Myitkyinā town. Except in the immediate neighbourhood of Mogaung, the township is a mass of forest-clad upland, and the density of population is very low. In 1903–4 the area cultivated was 6 square miles, in addition to *taungyas*; and the land revenue and *thathameda* amounted to Rs. 42,000.

Mogok Subdivision.—Southern subdivision and township of the Ruby Mines District, Upper Burma, consisting of a mass of hills broken up by ravines, lying between 22° 46′ and 23° 4′ N. and 96° 14′ and 96° 43′ E., with an area of 610 square miles. The population was 18,810 in 1891, and 24,590 in 1901, distributed in one town, MOGOK (population, 6,078), the head-quarters, and 112 villages. The importance of the township is derived from the ruby mines, which are described in the District article. About 10 miles north-west of Mogok is Bernardmyo (called after the late Sir Charles Bernard), situated at an altitude of over 5,000 feet above the sea, where European troops were once quartered. The township contained about 3,500 acres under cultivation in 1903–4, and the land revenue and *thathameda* in the same year amounted to Rs. 53,000.

Mogok Town.—Head-quarters of the Ruby Mines District, Upper Burma, situated in 22° 55′ N. and 96° 30′ E., in hilly country, about 4,000 feet above the sea. It lies 36 miles due east of the Irrawaddy, with which it is connected by a road 60 miles in length leading to Thabeikkyin. Population (1901), 6,078. The town, which occupies the middle of a very picturesque mountain-girt valley, is the head-quarters of the ruby-mining industry in Burma, and is a thriving trade centre with a large and flourishing masonry bazar, which brings in a revenue of between Rs. 30,000 and Rs. 40,000. A certain amount of stone-cutting, polishing, and setting is carried on, but the work is of a primitive character. Mogok is less a town than a collection of villages, and is divided into nine quarters. The actual population of the group of villages that surrounds the District head-quarters, and owes its existence to the Ruby Mines Company, is about 15,000. Mogok has not, despite its size, been constituted a munici-

pality, nor has any modified form of local self-government yet been introduced into it. The District fund benefits by the receipts from the bazar. Brick buildings are becoming common in the town, and frequent fires in the past have popularized the use of corrugated iron for roofing purposes. The usual public buildings include a hospital, and substantial residences have been built for the local officials and for the staff of the Ruby Mines Company. A jail is at present in course of construction.

Mohān Tahsīl.—North-eastern *tahsīl* of Unao District, United Provinces, comprising the *parganas* of Mohān Aurās, Gorindā Parsandan, Jhalotar Ajgain, and Asīwan Rasūlābād, and lying between 26° 33′ and 27° 1′ N. and 80° 25′ and 80° 55′ E., with an area of 436 square miles. Population fell from 257,449 in 1891 to 255,389 in 1901. There are 474 villages and three towns, ASĪWAN (population, 6,153) and MOHĀN (5,798), the former *tahsīl* head-quarters, being the largest. The demand for land revenue in 1903–4 was Rs. 4,27,000, and for cesses Rs. 43,000. The density of population, 586 persons per square mile, is the highest in the District. Mohān is intersected by the Sai, which flows sluggishly through a tortuous channel and is liable to sudden floods, though in ordinary years its valley is very fertile. The south and the east of the *tahsīl* are interspersed with barren patches of *ūsar* and stretches of hard clay, which produce excellent rice crops in favourable years. The north and west consist of loam with sandy ridges, and are generally fertile. In 1903–4 the area under cultivation was 262 square miles, of which 118 were irrigated. Nearly half the irrigated area is supplied from wells, and the remainder from the Sai and from tanks, which are more important sources here than in any other *tahsīl* of Unao.

Mohān Town.—Former head-quarters of the *tahsīl* of the same name in Unao District, United Provinces, situated in 26° 47′ N. and 80° 41′ E., on a metalled road from Ajgain railway station. Population (1901), 5,798. It is pleasantly situated on the banks of the Sai, which is here crossed by a fine stone bridge built by Mahārājā Nawal Rai, minister of the Nawāb Safdar Jang. The old road from Lucknow to Cawnpore passes through Mohān, which was once a place of some importance. It has always been celebrated for its Muhammadan physicians and mimics and actors. The town is administered under Act XX of 1856, with an income of about Rs. 900. A good deal of fruit is grown in the neighbourhood, and the town is flourishing. There is a school with 150 pupils.

Mohanlālganj.—Southern *tahsīl* of Lucknow District, United Provinces, comprising the *parganas* of Mohanlālganj and Nigohan, and lying between 26° 30′ and 26° 51′ N. and 80° 52′ and 81° 13′ E., with an area of 273 square miles. Population increased from 150,160

in 1891 to 154,115 in 1901. There are 226 villages and two towns, the largest being AMETHĪ (population, 6,447). In 1903-4 the demand for land revenue was Rs. 2,53,000, and for cesses Rs. 51,000. The density of population, 565 persons per square mile, is below the District average. Mohanlālganj is bounded on the north by the Gumtī and on the south by the Sai. The banks of both rivers are sandy; but the *tahsīl* contains a large area of fertile loam, which in the centre turns to clay interspersed with many tanks and *jhīls*. In 1903-4 the area under cultivation was 150 square miles, of which 66 were irrigated. Wells supply rather more than half the irrigated area, and tanks most of the remainder.

Mohanpur.—Petty State in MAHĪ KĀNTHA, Bombay.

Moharbhanj.—Native State in Orissa, Bengal. *See* MAYŪRBHANJ.

Mohgaon.—Town in the Sausar *tahsīl* of Chhindwāra District, Central Provinces, situated in 21° 38′ N. and 78° 45′ E., on a tributary of the river Jām, 37 miles south of Chhindwāra town, and 5 miles from the Nāgpur road. Population (1901), 5,730. The municipality has recently been abolished, and a town fund is now raised for purposes of sanitation. A cotton-ginning factory was opened in 1892 with a capital of Rs. 50,000, and cotton cloths are woven by hand. Mohgaon contains a vernacular middle school.

Mohindargarh Nizāmat (or Kānaud).—A *nizāmat* or administrative district of the Patiāla State, Punjab, lying between 27° 18′ and 28° 28′ N. and 75° 56′ and 76° 18′ E., with an area of 575 square miles. It is bounded on the north by the Dādri *tahsīl* of the Jīnd State; on the west and south by Jaipur State territory; and on the east by the State of Alwar and the Bāwal *nizāmat* of Nābha. The population in 1901 was 140,376, compared with 147,912 in 1891. The *nizāmat* contains the towns of NĀRNAUL and Mohindargarh or KĀNAUD, the head-quarters; and 268 villages. The land revenue and cesses in 1903-4 amounted to 3·9 lakhs. Situated in the extreme south-east of the Province, it is geographically part of the Rājputāna desert, and forms a long narrow strip of territory lying north by south. It is partially watered by three streams: the Dohān, which rises in the Jaipur hills, traverses the whole length of the *nizāmat*, and passes into Jīnd territory to the north; the Krishnāwati, which also rises in Jaipur and flows past Nārnaul town into Nābha territory in the east; and the Gohli. It is divided into two *tahsīls*: MOHINDARGARH, or Kānaud, and NĀRNAUL.

Mohindargarh Tahsīl (or Kānaud).—Head-quarters *tahsīl* of the Mohindargarh *nizāmat*, Patiāla State, Punjab, lying between 28° 6′ and 28° 28′ N. and 75° 56′ and 76° 18′ E., with an area of 299 square miles. The population in 1901 was 55,246, compared with 59,867 in 1891. The *tahsīl* contains the town of KĀNAUD (population, 9,984),

the head-quarters, and 111 villages. The land revenue and cesses in 1903-4 amounted to 1·5 lakhs.

Mohindargarh Fort.—The fort at KĀNAUD in Patiāla State, Punjab, was so named in 1861 by Mahārājā Narindar Singh, in honour of his son Mohindar Singh. The fort contains the public offices of the Mohindargarh *nizāmat* and *tahsīl*, and the treasury, jail, &c.

Mohmand Country.—A tract north-west of Peshāwar District, North-West Frontier Province, lying between 33° 30′ and 34° 40′ N. and 70° 30′ and 71° 30′ E., with an area of about 1,200 square miles. Its boundaries are: on the east and north, the Swāt and Ambhār rivers; on the west, the Afghān territory of Kunar; and on the south, the watersheds of the Kābul river. Those of the Mohmands who live west of the Afghān boundary are subject to the Amīr. The majority of the tribe, who live between Afghānistān and the border of Peshāwar District, are under the political control of the Deputy-Commissioner of Peshāwar; but there is an increasing tendency to settle in the District, in the *doābs* between the rivers. The Mohmand settlers seldom remain, however, during the summer months, being what is described as Do-Korā ('two homes'). The tract is naturally divided into the rich alluvial lands along the Kābul river from Jalālābād to Lālpura, and a network of hills and valleys from Lālpura eastward. The aspect of the Mohmand hills is dreary in the extreme, coarse grass, scrub wood, and dwarf-palms being the only vegetation. In summer the desert tracts radiate an intolerable heat, and water is scarce. This, coupled with the unhealthiness of the river lowlands, accounts for the inferiority of the Mohmands to their Afrīdi and Shinwāri neighbours in physique; and they are little recruited for the Indian army. The crops are largely dependent on the rainfall, and should this fail, considerable distress ensues. The hills, indeed, cannot support the population. The country exports little except grass, firewood, dwarf-palm, and charcoal. But there is a considerable through trade, the carrying of which supplements the people's resources. They also levy dues on the timber rafted down from Kābul. Since the Khyber Pass was opened, however, the routes through the Mohmand country have lost much of their importance. The Mohmands are closely allied to the Yūsufzai Pathāns. Under them are two vassal tribes: the Sāfis, probably Kāfirs converted to Islām, of whom little is known; and the Mullagoris, who inhabit the country between the Kābul river and the Khyber Pass. This tribe is a small one and cannot muster more than 500 to 800 fighting men, but has now for many years maintained its independence and denies ever having held a position of subordination to the Mohmands. The Mohmands formed one of the group of Afghān tribes which, driven eastward by Mongol inroads between

the thirteenth and fifteenth centuries, overran the country west and north of Peshāwar District, expelling or subduing the Hindu and non-Afghān races. Their success was in great measure due to their possession of hereditary chiefs or Khāns, who kept together forces which have gradually worn down the resistance of the disunited Shinwāris. The chief of these is the Khān of Lālpura, but there are several minor Khāns, and one family claims that title as the hereditary guardian of the *sarishta* or code of tribal law and custom. The Khāns of Lālpura at various times owed allegiance to Akbar and Shāh Jahān, to Nādir Shāh and Ahmad Shāh Durrāni. About 1782, however, Arsala Khān of Lālpura revolted against Tīmūr Shāh Durrāni, but was compelled to submit, and was executed at Peshāwar in 1791. Thereafter the history of the family is one of constant bloodshed. Saādat Khān, who held the Khānship for forty years, was a faithful vassal of the Bārakzai dynasty of Afghānistān; but in 1864 he was arrested by the Amīr for constant aggressions on the British border and died a prisoner at Kābul. After a period of anarchy, Akbar Khān was appointed in 1880 by the British Government. His extravagance and dissipation, however, greatly diminished his influence, and in 1896 he resigned his position and now lives at Kābul. In 1896 also the Utmanzai, Dāwezai, Halimzai, Tarakzai, and Pindiāli Mohmands came under the sole control of the British Government, and have received allowances from that date. In 1903 allowances were also fixed for the Musa Khel Mitai Mohmands. The Mohmands have a great reputation for bravery among the neighbouring tribes, and can muster about 18,000 fighting men. They are fairly well armed.

During the early period of British rule the Mohmands gave more trouble than any other frontier tribe; and for many years their history was a series of wanton outrages in British territory, culminating in the unprovoked murder of a British officer in 1873, and followed by the usual punitive expeditions. In 1895 the Mohmands, with no other justification than the Adda Mullā's fanatical preaching, joined in the resistance to the Chitrāl relief force. In 1897 they were among the first to raise the standard of *jihād* against the British power, and attacked SHABKADAR. The Mohmand country was accordingly invaded from Bājaur by two brigades of the Malakand field force under Sir Bindon Blood, and from Shabkadar by two more under Sir Edmond Elles.

A branch of the tribe has settled in the south-west corner of Peshāwar District, and is now quite separate from the main body.

Mohol.—Village in the Mādha *tāluka* of Sholāpur District, Bombay, situated in 17° 49′ N. and 75° 39′ E., on the Poona-Sholāpur road, about 20 miles south-east of Mādha, on the Great

Indian Peninsula Railway. Population (1901), 4,904. A weekly market is held on Sunday. A school is maintained by the American Mission. The town contains two temples, an old fort used under Marāthā rule for the offices of the former Mohol subdivision, and two ruined forts outside the town, built about 200 years ago by the local Deshmukhs. The two temples of Bhāneshwar and Nilkantheshwar or Chandramauli are both said to have been built by Hemādpant. A yearly fair is held at the Nilkantheshwar temple during three days, beginning with the fourth of the bright half of Vaishākh (April–May). According to local tradition, Mohol is a very old town. It is supposed to have suffered severely in the war between Hindus and Musalmāns at the close of the thirteenth century, and the present Deshmukh and Deshpānde families of the Mādha *tāluka* claim descent from officers appointed by the victorious Musalmāns. During the great Durgā-devī famine (1396–1408) the town is said to have been abandoned and to have taken twenty-five years to recover. Another local story says that Mohol was the residence of the god Nāgnāth, who afterwards proceeded to Vadval, 5 miles to the south-east. Nāgnāth's temples at Mohol and Vadval were built about 1730 by Ghongre, a rich merchant of Vairāg.

Mohpā.—Town in the Kātol *tahsīl* of Nāgpur District, Central Provinces, situated in 21° 19′ N. and 78° 50′ E., 21 miles north-west of Nāgpur city by road. Population (1901), 5,336. Mohpā is not a municipality, but a town fund is raised for sanitary purposes. A cotton-ginning factory with a capital of about Rs. 35,000 has been opened, and another is under construction. The town is surrounded by gardens, from which vegetables are sent to Nāgpur. It has a vernacular middle school.

Mokameh (*Mukāmā*).—Town in the Bārh subdivision of Patna District, Bengal, situated in 25° 25′ N. and 85° 53′ E., on the right or south bank of the Ganges. Population (1901), 13,861. It is a station on the East Indian Railway, 283 miles distant from Calcutta, and is a junction for passengers proceeding by the Bengal and North-Western Railway. The town contains a large number of European and Eurasian railway employés, and is an important centre of trade.

Moka Pagina Muvāda.—Petty State in REWĀ KĀNTHA, Bombay.

Mokokchūng.—Subdivision of the Nāgā Hills District, Eastern Bengal and Assam, lying between 26° 6′ and 26° 48′ N. and 94° 16′ and 94° 50′ E., with an area of 733 square miles. The population rose from 26,416 in 1891 to 33,783 in 1901, giving a density of 46 persons per square mile. A large portion of this increase was due to the immigration of tribes from beyond the frontier. The

subdivision was formed in 1889, in order to protect the Ao Nāgās from the aggression of the tribes that live to the east of the Dikho river, and is in charge of a European officer of police. The annual rainfall at Mokokchūng village averages 96 inches. The principal source of revenue is house tax, which in 1903-4 amounted to Rs. 23,800.

Mokundurrā.—Village and pass in Kotah State, Rājputāna. *See* MUKANDWĀRA.

Molakālmuru.—North-eastern *tāluk* of Chitaldroog District, Mysore, lying between 14° 34′ and 15° 2′ N. and 76° 36′ and 76° 52′ E., with an area of 290 square miles. The population in 1901 was 37,744, compared with 32,560 in 1891. There are three towns, Molakālmuru (population, 2,915), the head-quarters, Devasamudra (2,004), and Rāmpura (1,845); and 94 villages. The land revenue demand in 1903-4 was Rs. 54,000. The *tāluk* is a long and narrow strip of country jutting into Bellary District. A few isolated villages on the west are entirely separated from the remainder. The surface is very undulating, and except where rice and garden lands exist is covered with rocks and loose stones. A range of bare rocky hills runs right across the *tāluk* from south-east to north-west, among which are the Nunke Bhairava hill (3,022 feet) and the Jatinga Rāmesvara hill (3,469 feet). More than a third of the surface is occupied by these hills, which are so barren that not a blade of grass or a tree will grow on their sides. Nearly 9 square miles in the south are taken up with *kammar* jungle. The south is comparatively level, but the soil very poor. The Janagahalla river flows along the western boundary for a short distance, and then turns north-east across the *tāluk* under the name of Chinna-Haggari, receiving the drainage of the bare rocky hills around. All tanks of any importance are close to the river and fed by channels from it. Wells are numerous, and two crops of rice are raised in the year by their means. Betel-vines, tobacco, wheat, and *jola* are also grown, the first in the north for the Bellary market. Blankets, coarse cotton cloth, women's *sārīs* with silk borders, and tape for belts, are the principal manufactures. Iron ore from the Kumārasvāmi hill in Sandūr State is smelted in one or two villages.

Momeik.—Shan State and subdivision of the Ruby Mines District, Upper Burma. *See* MÖNGMIT.

Mominābād. — Town in Bhīr District, Hyderābād State. *See* AMBA TOWN.

Mone.—One of the Southern Shān States, Burma. *See* MÖNGNAI.

Mong.—One of the three circles into which the Chittagong Hill Tracts, Eastern Bengal and Assam, are divided for administrative purposes. It occupies the north-west corner of the District, lying

between 22° 45′ and 23° 47′ N. and 91° 41′ and 92° 7′ E., with an area of 653 square miles. The greater part of the country consists of hills and ravines covered with dense tree jungle. The population in 1901 was 31,898, compared with 22,708 in 1891. Most of the people are Tipperas (*see* HILL TIPPERA). There are 128 villages, of which MANĪKCHERI is the residence of the chief who administers the circle. The title of Mong Rājā is hereditary; the present incumbent is Rājā Nephru Sain.

Mong (*Mūng*).—Village in the Phālia *tahsīl* of Gujrāt District, Punjab, situated in 32° 39′ N. and 73° 33′ E., 35 miles from Gujrāt town. It stands on an old ruined mound, the modern houses being built of large ancient bricks. Greek and Indo-Scythian coins are found in numbers among the ruins, many of them bearing the monogram NIK; but General Cunningham's identification of Mong as the site of Nikaia, the city built by Alexander to commemorate his victory over Porus, is no longer accepted. Tradition assigns the origin of the mound to Rājā Moga, whom Cunningham identified with the Maues of the coins. The head-works of the Jhelum Canal are situated in the neighbourhood.

Mönghsu and **Möngsang** (Burmese, *Maingshu* and *Maingsin*).—Two small States (recently amalgamated) in the north of the eastern division of the Southern Shan States, Burma, lying between 21° 31′ and 22° 5′ N. and 98° 11′ and 98° 32′ E., with an area of 164 square miles. Both States used formerly to be part of the Northern Shan State of North Hsenwi, but were made separate charges in 1857. The combined State is bounded on the north and east by Manglön; on the south by Möngnawng; and on the west by Möngnawng and Kehsi Mansam. It consists mainly of rugged hills and broad valleys, watered by the Nam Pang and its affluents; and rice is the only crop grown to any extent. The population in 1901 was 17,480, distributed in 265 villages. More than 14,000 of this total consisted of Shans, and the greater part of the remainder were Yins. A few Palaungs live in the hills. The residence of the Myoza is at Mönghsu (population, 244), to the east of the Nam Pang on a tributary of that stream. The revenue in 1903–4 amounted to Rs. 11,000 (all from *thathameda*); and the chief items of expenditure were Rs. 5,600 tribute to the British Government, Rs. 2,700 privy purse, and Rs. 1,700 general charges on account of administration.

Monghyr District (*Mungīr*).—District in the Bhāgalpur Division of Bengal, lying between 24° 22′ and 25° 49′ N. and 85° 36′ and 86° 51′ E., with an area of 3,922 square miles. Monghyr is bounded on the north by the Districts of Bhāgalpur and Darbhangā; on the east by Bhāgalpur; on the south by the Santāl Parganas and Hazāribāgh; and on the west by Gayā, Patna, and Darbhangā.

The Ganges flows through the District from west to east, dividing it into two portions of unequal size and of very different character.

Physical aspects.

The northern portion is a great alluvial plain, differing but little from the adjoining portions of Darbhangā and Bhāgalpur. This portion is again subdivided by the Burhī Gandak, the country to the west of that river being similar to the indigo-growing tracts of North Bihār. The remaining portion is traversed by the Tiljūgā, also called the Kamlā, and by the Bāghmati, which was possibly at one time a continuation of the river of the same name which joins the Gandak to the east of Muzaffarpur. It is seamed by deserted channels; and the whole area, which covers about 200 square miles, is low-lying, swampy, and liable to inundation. The south of the District is also to a great extent alluvial; but the general level is higher and the surface more undulating, and several ranges of hills, outliers of the Vindhyan series, enter the District from the south and converge towards Monghyr town. The principal are the Kharagpur hills, which form a distinct watershed, the Kiul river draining the western, and the Man and other streams the eastern portion of the range. The main channel of the Ganges has several times shifted both to the east and to the west of the rock on which the Monghyr fort stands, alternately forming and washing away large areas of *diāra* lands; but since the earliest times of which any record exists, it has washed the base of the rock immediately to the north of the fort. The largest areas of alluvial deposit formed by these changes in the main channel are comprised in the Government estates of Kutlupur to the west, and Binda *diāra* to the east of Monghyr town. A large marsh, known as the Kābartāl, in the north of the Begusarai subdivision, apparently marks the old bed of one of the large rivers, and drains eastward through the low tract lying in the north-east of the District.

North of the Ganges the older rocks are concealed by the alluvium of the Gangetic plain; but south of the river the level rises rapidly and the older rocks soon appear, first as more or less disconnected hill groups, and farther south as a continuous uninterrupted outcrop. These rocks consist of the oldest system recognized by geologists, that known as Archaean. They include a vast series of crystalline rocks of varied composition, including granitic and dioritic gneisses, hornblende and mica-schists, epidiorites, crystalline limestones, and many other rocks collectively known as Bengal gneiss; another very ancient series consisting of highly altered sedimentary and volcanic rocks, including quartzites, quartz-schists, hornblendic, micaceous, talcose, and ferruginous schists, potstones, phyllites, slates, &c., forming an assemblage very similar to that which has received the name

of Dhārwār schists in Southern India; and vast granitic masses and innumerable veins of coarse granitic pegmatite, intruded amongst both the schists and the Bengal gneiss. The Bengal gneiss occupies principally the southernmost part of the District. The ancient stratified series assimilated with the Dhārwārs forms several hill groups situated between the southern gneissose area and the valley of the Ganges: these are the Kharagpur hills, the largest of the hill masses situated south of Monghyr and east of Luckeesarai, the Sheikhpurā hills and the Gidhaur range, respectively west and south of Luckeesarai. The rocks of the Gidhaur range are highly metamorphosed by innumerable veins of coarse granitic pegmatites, which are of great economic importance on account of the mica they contain, and constitute the eastern portion of the great mica-belt of Bengal. The coarsest grained, and consequently the most valuable, pegmatites are the comparatively narrow sheets which intersect the schists of the metamorphosed stratified series. The larger and more uniform comparatively fine-grained intrusions are valueless so far as mica is concerned, though they belong to the same system of intrusions. On account of its habit of weathering in the shape of large rounded hummocks, the rock forming these more massive intrusions has often been described under the name of dome-gneiss, which, more accurately, should be dome-granite. The rocks of the Kharagpur hills are not nearly so much altered as those of the Gidhaur range. The strata originally constituted by shales, which, in the latter range, have been transformed into schists, are only altered to slates in the Kharagpur hills. These slates, which are regularly cleaved and of fairly good quality, are quarried to a certain extent[1].

In the portions of the District near the Ganges the rice-fields abound with the usual weeds of such localities. In the swampy tract to the east of the Burhī Gandak, rank *pod* grass and the graceful pampas grow in abundance, and below them *dubh* and other succulent grasses. Near villages there are often considerable groves of mango-trees and palmyra palms; and north of the Ganges perhaps nine-tenths of the trees are mangoes, the fruit of which forms an important item in the food-supply of the poorer classes. Farther from the river on the south the country is more diversified; and, though no Government forests exist, an area estimated at about 427 square miles is under forest, chiefly towards the southern confines of the District and in the Kharagpur estate of the Mahārājā of Darbhangā. The principal trees growing in the alluvial and

[1] T. H. Holland, 'Mica Deposits of India,' *Memoirs, Geological Survey of India*, vol. xxxiv, pt. ii. The above account was contributed by Mr. E. Vredenburg, Deputy-Superintendent, Geological Survey of India.

cultivated areas are the mango (*Mangifera indica*), *pīpal* (*Ficus religiosa*), banyan (*Ficus indica*), *siris* (*Mimosa Sirissa*), *nīm* (*Melia Azadirachta*), *jāmun* (*Eugenia Jambolana*), *sissū* (*Dalbergia Sissoo*), red cotton-tree (*Bombax malabaricum*), *pākar* (*Ficus infectoria*), jack-fruit tree (*Artocarpus integrifolia*), *bel*-fruit tree (*Aegle Marmelos*), *babūl* (*Acacia arabica*), palmyra (*Borassus flabellifer*), and date-palm (*Phoenix sylvestris*); while the most important of the trees which clothe the hills and the undulating country in their neighbourhood are the *sāl* (*Shorea robusta*), *kend* (*Diospyros melanoxylon*), the black heart of which forms the ebony of local commerce, the *āsan* (*Terminalia tomentosa*), *palās* (*Butea frondosa*), *piār* (*Buchanania latifolia*), *gamhār* (*Gmelina arborea*), *gular* (*Ficus oppositifolia*), and the *mahuā* (*Bassia latifolia*). Perhaps the most useful of all these trees is the *mahuā*, which yields food, wine, oil, and timber. From its flowers the common country spirit is distilled, and whether fresh or dried they furnish the poorer classes with wholesome food; from its fruit is pressed an oil largely used for the adulteration of *ghī*; and the tough timber is used for the naves of wheels.

Rope is made in large quantities from a jungle creeper called *chehār* (*Bauhinia Vahlii*), and also from the coarse *sabai* grass (*Ischaemum angustifolium*). Lac is collected to a very small extent for exportation and for making bracelets, toys, &c. The insects are found chiefly on the small branches and petioles of the *palās*-tree (*Butea frondosa*). This tree also affords a valuable gum and a yellow dye of considerable permanence.

Tigers are not common, though they are said to have been responsible for sixty-nine deaths in 1900. Leopards, hyenas, and black bears are found in the hills, and wild hog in most parts of the District. Several varieties of deer are met with, such as the *sāmbar*, *chītal* or spotted deer, and barking-deer. The 'ravine deer'—more properly the Indian gazelle (*Gazella bennetti*)—also occurs. The marshes in the north are visited during the cold season by myriads of geese, ducks, and cranes; and peafowl, jungle-fowl, and spur-fowl are still found in small numbers among the hills in the south of the District. These birds, however, like the larger wild animals, have now been nearly exterminated by hunters and the forest tribes.

The temperature is moderate except during the hot months of April, May, and June, when the westerly winds from Central India cause high temperature with very low humidity. The annual rainfall averages 47 inches, of which 6·9 inches fall in June, 13·2 in July, 11·9 in August, and 8 in September. In the earthquake of 1897 considerable damage was done to masonry buildings at the head-quarters station and at Jamālpur.

In early times the present site of Monghyr town lay within the

old Hindu kingdom of Anga, while a portion of the western part of the District appears to have been included within the limits of the ancient kingdom of Magadha. There are still several traces of Buddhist remains in this portion of the District; and ruins at RAJAONĀ have been identified by General Cunningham with those of a monastery visited by the Chinese pilgrim Hiuen Tsiang. The District subsequently passed under the Pāl dynasty; and a relic of their rule still exists in a copperplate found on the site of the fort in 1780, which contains an inscription of uncertain date recording that the armies of Rājā Deb Pāl (tenth century A.D.) crossed the Ganges by a bridge of boats. The next mention of Monghyr is in connexion with the conquest of Bihār and Bengal by the Muhammadans, when Monghyr town was taken by Muhammad-i-Bakhtyār Khiljī (*circa* 1198). In 1580, when Rājā Todar Mal was sent by the emperor Akbar to reduce the rebellious chiefs of Bengal, he made Monghyr his head-quarters and constructed lines of entrenchment there. In the next century Shāh Shujā, after his defeat by Aurangzeb in 1659, retreated to Monghyr and strengthened the fortifications and outer lines of entrenchment, but hurriedly abandoned the fort on hearing that Mīr Jumla was threatening his line of retreat. Subsequently in 1763 the Nawāb, Mīr Kāsim Alī, selected the town as his capital and established an arsenal here. After the defeat of his army at Udhuā Nullah, he retreated to Monghyr, but fled on the approach of the British under Major Adams; and the governor in command of the fort capitulated after a two days' bombardment. The greater part of the country, especially to the south of the Ganges, remained for some time in the hands of semi-independent chieftains, the most powerful of these being the Rājā of Kharagpur, who ruled at one time over 24 *parganas*. The founder of this family was a Rājput soldier of fortune, who overthrew the original Khetauri proprietors by an act of gross treachery; and in the reign of the emperor Jahāngīr his son and successor strengthened his position by embracing Islām and taking a wife from the imperial *zanāna*. The downfall of the line dates from the British occupation, when the ancestral estates were rapidly sold one after another for arrears of revenue, a large portion being bought by the Mahārājā of Darbhangā. Other ancient families are those of GIDHAUR and of the Rājās of Pharkiyā, the latter of whom trace their descent from a Rājput who first brought the lawless tribes of Dosādhs under subjection in the reign of Humāyūn, and subsequently received a *zamīndāri* grant in 1494. Portions of the property still continue in his family, but the estate has been much broken up by subdivision and alienation. The modern history of Monghyr will be found in the article on BHĀGALPUR DISTRICT, within which it was included in the earlier days of English administration. The local records do not give

History.

the date of the establishment of the District as a subsidiary executive circle, but this change appears to have been effected about the beginning of the nineteenth century. In 1832 Monghyr was made an independent Deputy-Collectorship and Joint-Magistracy, and the title of Magistrate and Collector was subsequently given to the District officer.

The District contains several remains of antiquarian interest. In addition to the great fort at Monghyr, there are the ruins of other forts at Indpe (near Jamūī), Naulakhagarh near Khaira, Chakai, Jaimangalgarh in the Kābartāl and Naula in the Begusarai subdivision. Buddhist remains are to be found at Rajaonā and Hasanganj near Luckeesarai, and at Uren near Kajra. There is an inscription of about the tenth century at Kashtharani Ghāt and another referring to the Bengal Sultān Rukn-ud-dīn Kaikaus (1297) at Luckeesarai. The oldest extant building of the Muhammadan period is the *dargāh* of Shāh Nāfah, built in 1497-8 by Dāniyāl, son of Alā-ud-dīn Husain, king of Bengal.

Population.

The population increased from 1,814,638 in 1872 to 1,969,950 in 1881, to 2,036,021 in 1891, and to 2,068,804 in 1901. The District is fairly healthy, though cholera is epidemic; and the falling off in the rate of progress indicated by the census returns is chiefly due to the appearance of plague in 1900, which, in addition to the consequent mortality, caused a large number of persons to leave the District. The principal statistics of the Census of 1901 are shown below:—

Subdivision.	Area in square miles.	Number of Towns.	Number of Villages.	Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
Monghyr . .	1,578	3	923	874,611	554	+ 0.4	26,875
Jamūī . .	1,593	1	838	551,227	346	− 0.5	15,537
Begusarai. .	751	...	755	642,966	857	+ 5.2	18,315
District total	3,922	4	2,516	2,068,804	527	+ 1.6	60,727

NOTE.—In 1904 and 1905 changes of jurisdiction were effected, with the result that the area of the Monghyr subdivision was increased to 1,895 square miles, and that of the Jamūī subdivision reduced to 1,276 square miles. The population of the subdivisions as now constituted is 1,050,840 and 374,998, and the density 555 and 294 persons respectively per square mile.

The density is greatest north of the Ganges, where there are 693 persons per square mile, as compared with only 412 persons in the south Gangetic tract, while in the extreme south, on the borders of Hazāribāgh, there are barely 250 persons per square mile. The greatest growth has occurred in the fertile Begusarai subdivision on the north

of the Ganges; but the sparsely inhabited hilly *thānas* in the south-east also show a steady development. The four towns are MONGHYR, the head-quarters, JAMĀLPUR, SHEIKHPURĀ, and KHAGARIĀ, the first two being municipalities. There is considerable emigration among the labouring classes, especially to Central and North Bengal and to Assam. The vernacular in the north is the Maithilī, and in the south the Māgadhī dialect of Bihārī. Hindus constitute 90·3 per cent. of the total population and Muhammadans 9·5 per cent.

The most numerous Hindu castes are Ahīrs and Goālās (240,000), Bābhans (189,000), Dhānuks (132,000), Musahars (123,000), Dosādhs (115,000), and Koiris (110,000); while Brāhmans, Chamārs and Kāndus, Rājputs, Tāntis, and Telis have each more than 50,000 representatives. The Bābhans are for the most part occupancy ryots or tenure-holders. The Musahars, Dosādhs, and Chamārs may be considered semi-Hinduized aborigines. The Musalmāns are chiefly Shaikhs, Jolāhās, and Kunjras. Two-thirds of the population are supported by agriculture, 13·6 per cent. by industries, 1·1 per cent. by commerce, and 1·6 by the professions.

Christians number 1,433, of whom 423 are natives. The Baptist Mission, which is said to have been established at Monghyr in 1816, has stations at Begusarai and Luckeesarai. There are two European missionaries, and two European ladies also work among the native women. The United Free Church of Scotland opened a branch at Chakai in 1879, which works chiefly among the Santāls; the mission maintains a hospital, with a branch dispensary and several schools.

Agriculture, &c.

The fertile plain north of the Ganges, from the boundary of Darbhangā District to the mouth of the Gandak, is almost entirely under cultivation, the chief crops being *bhadoī* and *rabi*. The depressed tract to the east of this grows fine *rabi* crops in some places and rice in others; but during the rains it is to a large extent inundated and uninhabited, and there are large tracts of pasture where herds graze in the dry and hot season. South of the Ganges the cultivated area lies chiefly in the basin of the Kiul river and its tributaries, and in *pargana* Kharagpur, where the largest area is under winter rice. The tract to the north of Sheikhpurā and west of Luckeesarai, which is also liable to inundation, is nearly all devoted to *bhadoī* and *rabi*.

The chief agricultural statistics for 1903–4 are shown in the table on the next page, areas being in square miles.

About 67 per cent. of the cultivated area is estimated to be twice cropped.

In the Begusarai subdivision north of the Ganges, for which exact figures are available on account of the survey in progress, it has been found that in the Begusarai *thāna* 79 per cent. and in Teghrā 86 per

cent. of the total area is cultivated. In both *thānas* maize is the most important crop, covering about one-fourth of the total. Wheat, gram, *maruā*, and barley are also extensively grown. Winter rice accounts for less than 10 per cent. of the land in Begusarai and less than 5 per cent. in Teghrā. Indigo is grown on 3 per cent. of the area in Begusarai and on 5 per cent. of that in Teghrā. In the whole District, rice is the crop most extensively grown, and it was estimated to cover 447 square miles in 1903–4. The chief variety is winter rice, which is raised for the most part south of the Ganges. Among other crops the poppy is important, but is cultivated only in the southern portion of the District; while tobacco is almost confined to the portion north of the Ganges.

Subdivision.	Total.	Cultivated.	Cultivable waste.
Monghyr*.	1,578	749	116
Jamūī*	1,593	119	67
Begusarai	751	556	83
Total	3,922	1,424	266

* Owing to changes of jurisdiction, the area of the Monghyr subdivision has subsequently been increased to 1,895 square miles, and that of the Jamūī subdivision has been reduced to 1,276 square miles.

Cultivation is extending chiefly in the low-lying lands of the Gogrī *thāna*, where the recently constructed railway from Hājīpur to Katihār has prevented inundation from the south. During the decade ending 1901–2 an average of Rs. 3,000 per annum was advanced under the Land Improvement Loans Act; these advances are granted chiefly for improving the means of irrigation. In the same period an average of Rs. 7,000 per annum was advanced under the Agriculturists' Loans Act, large loans being granted where necessary on account of the failure of the crops owing to drought or flood.

The cattle are generally small and inferior to the breeds in Patna and Shāhābād Districts. There is ample pasturage among the hills in the south during the rainy season, and on the grass lands of Pharkiyā in the dry season.

The only large irrigation work is in the Kharagpur estates of the Mahārājā of Darbhangā. While the estate wās under the Court of Wards, a dam was built across the river Man about two miles above Kharagpur, by which water is banked up in a valley and thence distributed by irrigation channels over an area of about 28 square miles. This useful scheme, which cost less than 7 lakhs, has been chiefly instrumental in raising the rent-roll of the estates by more than 300 per cent. or from about Rs. 40,000 to nearly Rs. 1,30,000. Elsewhere in the southern portion of the District there are a few

artificial irrigation channels taking off from hill-streams, but the principal method of irrigation consists in storing water in artificial reservoirs, known as *āhars*. Wells are also used for irrigation purposes north of the Ganges, where artificial irrigation is little required as the country is subject to inundation during the rains.

The fisheries in the Ganges and Gandak and in the large *jhīls* lying in *pargana* Pharkiyā are very extensive, and the supply of fish is abundant during the greater part of the year. There is an extensive trade in the shells of the fresh-water mussel (*Unio*) and marsh snail (*Ampullaria*), which are collected in tons in the Pharkiyā marshes and, when burned, yield a very pure lime.

Minerals are entirely confined to the tract lying south of the Ganges. Galena, a sulphuret of lead containing a small quantity of silver, is found in the hill tracts of the Chakai *pargana*, and minium or protoxide of lead in the beds of the Kharagpur hill streams. Mica occurs in the belt of schists and gneissose granite which stretches north-eastwards from Gayā District to near Nawādih (Jhā-Jhā) on the East Indian Railway. In 1903-4 four mines were worked, with an output of 227 tons. Iron ores are found in the schists of the Kharagpur hills, and in several places ochreous ores are employed as pigments. Slates are quarried near Jamālpur, the output in 1903-4 being 213 tons; and stone quarries are also worked. Felspar fit for the manufacture of porcelain occurs in abundance in the south of the District. Corundum is obtained from the hills near Jamūī, but the precious forms are not met with. Travertine is found near Gidhaur and in the Kharagpur hills.

Trade and communications.

Monghyr has long been famous for its manufacture of firearms, which was introduced when there was a Musalmān garrison in the fort. A serviceable double-barrelled gun can be obtained at Monghyr for Rs. 30, a single-barrelled gun for Rs. 15, and a large double-barrelled pistol for the same sum. Swords and iron articles of various kinds are also made, but of no special excellence. Cotton-weaving is largely carried on; and there are a few dyers and calico printers, the centre of the latter industry being Sheikhpurā. Coarse blankets are woven by a few families of Gareris. Among other minor industries may be mentioned cabinet-making and boat-making, soap-boiling, making porous water-bottles of clay, carving *lingams* or emblems of Siva out of chlorite, basket-weaving, and straw work. Sticks, jewellery cases, and other articles are made of ebony and inlaid with ivory or bone. Imitation fish are made of silver and used as caskets and scent phials. Sheikhpurā is noted for its manufacture of tubes for the *hukka* or native pipe. The East Indian Railway Company's works at Jamālpur are the largest manufacturing workshops in India, employing over 9,000 hands. All the constituent

parts of a locomotive can now be constructed there, and railway material of all descriptions is manufactured from malleable iron, cast iron, and steel. The manufacture of indigo has declined, the out-turn of dye in 1903-4 being 85 tons. The Gidhaur *gur* (raw sugar) from the Jamūī subdivision has a special reputation, and generally sells at higher prices than that manufactured in other places. Aerated water is made from various mineral springs.

The District is favourably situated for trade by both rail and river. The most important river marts are Khagariā on the Gandak, and Simariā, Monghyr, and Gogrī on the Ganges. Barhiyā, Luckeesarai, Jamālpur, Sheikhpurā, and Bariārpur are the chief centres of trade on the railway, while a considerable volume of traffic passes via Tārāpur to Sultānganj station in Bhāgalpur District. The chief articles of import are piece-goods, coal and coke, rice, and sugar. The exports consist mainly of agricultural produce, the chief items being gram and pulses, linseed, wheat, mustard, rapeseed, chillies, and tobacco leaf. There is also a considerable export of raw sugar, and an equal import of refined sugar; *ghī* also is largely exported. The chief trading castes are the local Baniyās, but there are many Mārwāris in the towns and larger villages.

South of the Ganges the loop-line of the East Indian Railway (broad gauge) passes through the District from east to west, and the chord-line from north-west to south-east, while the South Bihār Railway runs through the Sheikhpurā *thāna* westwards to Gayā. The Katihār-Hājīpur section of the Bengal and North-Western Railway (metre gauge) traverses the District north of the Ganges from east to west. The District board maintains 95 miles of metalled and 1,471 miles of unmetalled roads, including 194 miles of village tracks. The most important roads are: the Tirhut road running westwards from the north bank of the Ganges opposite to Monghyr town, the Monghyr-Bhāgalpur and Monghyr-Patna roads, and the roads from Bariārpur to Kharagpur, and from Luckeesarai to Sheikhpurā and to Jamūī. The District board controls 56 ferries.

The Ganges, which intersects the District from west to east for 70 miles, is navigable at all seasons by river steamers and the largest country boats; and a considerable river traffic is carried on. The steamers of the India General and River Steam Navigation Companies convey goods and passengers to places between Calcutta and Patna. The East Indian Railway has also a steamer service between Monghyr, Mansi, and Gogrī, and a ferry service across the Ganges opposite Monghyr in connexion with the Bengal and North-Western Railway. The Little Gandak and Tiljūgā are navigable all the year round, but only small craft of 10 tons burden can ply on them in the hot season. During the rains a large portion of the northern part of the District

remains under water, and boats are then largely used as a means of communication.

Famine.

The famine of 1865–6 was severely felt in the south-west of the District, and there were a large number of deaths from starvation and diseases engendered by want. In 1874 another failure of the rice crop threatened famine, which was, however, averted by the facilities for importation afforded by the railway and by the relief which Government provided on a lavish scale; the total expenditure on this occasion amounted to 23·30 lakhs, of which the larger portion consisted of advances. The crops were again short in 1891, especially in the north of the District, and relief works were open for some months. They were only resorted to by a small proportion of the population, and the number on relief at no time rose above 2,171. In 1896–7 the poor suffered from the high prices consequent on famine elsewhere, but the crops were fairly good.

Administration.

For administrative purposes the District is divided into three subdivisions, with head-quarters at MONGHYR, JAMŪĪ, and BEGUSARAI. The District Magistrate-Collector is usually assisted at head-quarters by a staff consisting of a Joint-Magistrate and six Deputy-Magistrate-Collectors; while the subdivisions of Begusarai and Jamūī are each in charge of a Joint Magistrate.

Subordinate to the District Judge for the disposal of civil suits are a Sub-Judge and five Munsifs, of whom two sit at Monghyr, two at Begusarai, and one at Jamūī. Criminal courts include those of the District and Sessions Judge, who is also Judge of Bhāgalpur, and the above-mentioned magistrates. Riots are a very common form of crime, due generally to disputes about land; burglaries are numerous, and dacoities are occasionally committed.

Sarkār Monghyr, assessed by Todar Mal at 7·41 lakhs, appears to have embraced areas not included within the present Monghyr District, and to have been almost entirely unsubdued; it was probably also largely unexplored. At the time of the British accession to the Dīwāni in 1765 it was assessed to a net revenue of 8·08 lakhs, and covered 8,270 square miles. It is not, in fact, practicable to institute any comparison between the present revenue of Monghyr District and the figures for years earlier than 1850, as till that year the land, excise, and other revenue was for the most part paid into the Bhāgalpur treasury, and the accounts were not kept separately. Subdivision of landed property has gone on rapidly; the number of estates in 1903–4 amounted to 8,027, of which 7,916 with a current demand of 7·77 lakhs are permanently settled, 65 with a demand of Rs. 52,000 are temporarily settled, and 46 with a demand of Rs. 72,000 are held direct by Government. Owing to the backward condition of the country at the time of the Permanent Settlement, the incidence of the land revenue is very

low, amounting to only 10 annas per cultivated acre, or less than 18 per cent. of the rental. Survey and settlement operations have been completed in the portion of the District north of the Ganges and in the Government estates south of that river. Occupancy holdings average 1·75 acres in the Begusarai *thāna*, where there are large *diāra* holdings and *jhīls*, and 1·35 acres in Teghrā; and the average rent is Rs. 3-14-7 per acre in Begusarai, compared with Rs. 3-6-2 in Teghrā. For the whole District the incidence of rental per cultivated acre is about Rs. 5-10-9. In the south the tenure known as *bhaoli* is common; under this system the tenant pays a rent in kind equal to a certain proportion of the out-turn in each year, which is usually one-half the produce.

The following table shows the collections of land revenue and of total revenue (principal heads only), in thousands of rupees:—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	8,87	8,97	8,82	9,00
Total revenue . .	15,53	17,71	20,70	22,28

Outside the municipalities of Monghyr and Jamālpur, local affairs are managed by the District board, with the assistance of local boards in each subdivision. In 1903-4 its income was Rs. 3,41,000, of which Rs. 1,58,000 was derived from rates; and the expenditure was Rs. 3,13,000, the chief item being Rs. 2,11,000 spent on public works.

The District contains 18 police stations and independent outposts. In 1903-4 the force subordinate to the District Superintendent consisted of 3 inspectors, 33 sub-inspectors, 34 head constables, and 415 constables; there was, in addition, a rural police of 310 *daffadārs* and 3,599 *chaukīdārs*. The District jail at Monghyr has accommodation for 274 prisoners, and subsidiary jails at Jamūī and Begusarai for 72.

The great majority of the population are illiterate, only 2·9 per cent. 5·8 males and 0·2 females) being able to read and write in 1901. The number of pupils under instruction decreased from 30,617 in 1882-3 to 25,449 in 1892-3, after which there was a large increase; but it again declined to 25,738 in 1900-1, when the attendance fell off very greatly owing to the outbreak of plague. In 1903-4, 28,752 boys and 2,841 girls were at school, being respectively 18·9 and 1·7 per cent. of those of school-going age. The number of educational institutions, public and private, in that year was 1,326, including one Arts college, 22 secondary, 1,025 primary, and 278 special schools. The most important of these are the Diamond Jubilee College and the District school in Monghyr town, and the high schools at Begusarai and Jamūī. Among aborigines a few Santāls in the south attend

primary schools. The expenditure on education was 1·33 lakhs, of which Rs. 9,000 was met from Provincial funds, Rs. 42,000 from District funds, Rs. 4,000 from municipal funds, and Rs. 60,000 from fees.

In 1903 the District contained 13 dispensaries, of which 6 had accommodation for a total of 132 in-patients. The cases of 80,000 out-patients and 1,200 in-patients were treated during the year, and 5,503 operations were performed. The expenditure was Rs. 32,000, of which Rs. 800 was met from Government contributions, Rs. 12,000 from Local and Rs. 5,000 from municipal funds, and Rs. 10,000 from private subscriptions.

Vaccination is compulsory only in municipal areas. In 1903–4 the number of persons successfully vaccinated was 76,000, representing 37·9 per 1,000 of the population.

[M. Martin (Buchanan Hamilton), *Eastern India*, vol. ii (1838); Sir W. W. Hunter, *Statistical Account of Bengal*, vol. xv (1877).]

Monghyr Subdivision.—Head-quarters subdivision of Monghyr District, Bengal, lying between 24° 57′ and 25° 49′ N. and 85° 36′ and 86° 51′ E., with an area of 1,895 square miles. The subdivision is divided into two portions by the Ganges. The northern portion is a low, but fertile, alluvial plain; the south is also to a great extent alluvial, but the general level is higher and the surface more undulating, and it contains hill ranges which gradually converge towards Monghyr town. The population in 1901 was 874,611, compared with 870,755 in 1891, the density being 554 persons per square mile. At the time of the Census it comprised an area of 1,578 square miles, but the Sheikhpurā *thāna* was subsequently transferred to it from the Jamūī subdivision. The population of the subdivision as now constituted is 1,050,840, and the density 555 persons per square mile. It contains four towns, MONGHYR (population, 35,880), the head-quarters, JAMĀLPUR (13,929), KHAGARIĀ (11,492), and SHEIKHPURĀ (10,135); and 1,262 villages. The chief centres of trade are Monghyr town and Khagariā. The head-quarters of the locomotive department of the East Indian Railway are situated at Jamālpur. Kiul near LUCKEESARAI is an important railway junction.

Monghyr Town (*Mungīr*).—Head-quarters of Monghyr District, Bengal, situated in 25° 23′ N. and 86° 28′ E., on the south bank of the Ganges. The origin of the name of Monghyr is very uncertain. It is said that the place was formerly called Madgalpur, or Madgalāsrām, from its having been the abode of Madgal Muni, a hermit saint who lived in early Hindu times. Another explanation, founded on the authority of the *Harivansa*, derives the name from a certain Madgal Rājā, one of the sons of Visvāmitra, son of a Gādhi Rājā, who received this part of his father's dominions. Dr. Buchanan Hamilton states that on an inscription seven or eight centuries old, found at Monghyr

and perhaps more ancient than the *Harivansa*, the name is written Madgagiri, or 'the hill of Madga,' and not Madgalpurī, or 'the abode of Madgal.' The existence, therefore, of both the saint and the prince is very doubtful. Possibly the original name was Munigriha, 'the abode of the *muni*,' and was corrupted into Mungīr, in the same way as Rājagriha has been corrupted into Rājgīr.

Tradition assigns the foundation of the town to Chandra Gupta, after whom it was called Guptagarh, a name which has been found inscribed on a rock at Kashtharani Ghāt at the north-western corner of the present fort. A copperplate found on the site of the fort in 1780 contains an inscription of uncertain date, recording that the armies of Rājā Deb Pāl here crossed the Ganges by a bridge of boats; the date usually assigned to Deb Pāl is the tenth century. Monghyr is first mentioned by Muhammadan historians as having been taken by Muhammad-i-Bakhtyār Khiljī, during the conquest of Bihār, about 1198; and henceforth it is often referred to as a place of military importance. Prince Dāniyāl, son of Alā-ud-dīn Husain, the Afghān king of Gaur, repaired the fortifications in 1497 and built a vault over the tomb of Shāh Nāfah, the Muhammadan patron saint of the town; and in 1580 Rājā Todar Mal, on being deputed by Akbar to reduce the rebellious Afghān chiefs of Bengal, made Monghyr his head-quarters and constructed entrenchments between the Ganges and the hills. Shāh Shujā, after his defeat by Aurangzeb near KHAJUHĀ, retreated here in 1659, and, resolving to make a stand against the imperial troops, strengthened the fortifications and threw up lines of entrenchment; on learning, however, that Mīr Jumla had got round to his rear by forced marches through the hills of Jhārkand, he hurriedly withdrew his troops from the trenches and beat a retreat to Rājmahāl. In the next century, when the Nawāb, Mīr Kāsim Alī, determined on war against the English, he selected Monghyr as his capital in 1763, and established an arsenal under the supervision of his Armenian general, Ghurghin (Gregory) Khān: the gun-making industry for which the town is famous is said to date from the establishment of this arsenal. He retreated here after the defeat of his army at Udhuā Nullah, but fled on the approach of the British troops under Major Adams; and the governor who was left in command of the fort capitulated after a two days' bombardment. A spot by the side of the fort is still pointed out as the scene of the memorable outrage, when the two Seths, the great Hindu bankers of Murshidābād, were thrown into the Ganges on a charge of favouring the British cause. Monghyr has been a place of considerable importance since the earliest days of the British occupation of Bengal, although it did not become a civil station until 1812; and the old Musalmān fort was once occupied by a regiment belonging to the East India Company.

At present Monghyr is a purely civil station, and in some respects one of the most picturesque in Bengal. It consists of two distinct portions—the fort, within which are situated the public offices and residences of the Europeans; and the native town, stretching away from the former eastward and southward along the river. The fort is formed by a great rampart of earth enclosing a rocky eminence, and is faced with stone. It was probably at one time a strong position; towards the west the river comes up to the walls, forming a natural defence, while to the landward a deep wide ditch surrounds and protects it.

The population fell from 59,698 in 1872 to 55,372 in 1881; it rose again to 57,077 in 1891 but dropped to 35,880 in 1901, when it included 26,715 Hindus and 8,950 Muhammadans. The decrease on the last occasion was due to the fact that the plague was raging severely in the town at the time when the Census was taken, and that a large number of the inhabitants had temporarily left to escape its ravages. A second enumeration, taken at the end of July when the plague had disappeared, gave a population of 50,133. The town is favourably situated for trade by both rail and river; formerly the trade was carried almost exclusively by river, but the greater part has been diverted to the railway. It is connected by a short branch with the loop-line of the East Indian Railway, and by a steam ferry with the railway system on the north of the Ganges.

Monghyr was constituted a municipality in 1864. The income during the decade ending 1901–2 averaged Rs. 64,000, and the expenditure Rs. 60,000. In 1903–4 the income was Rs. 73,000, including Rs. 23,000 derived from a tax on houses and land, Rs. 13,000 from tolls, Rs. 10,000 from a conservancy rate, Rs. 3,000 from a tax on vehicles, &c., Rs. 7,000 from revenue from municipal property and interest on investments, and Rs. 12,000 as grants from various sources. The incidence of taxation was nearly R. 1 per head of the population. In the same year the expenditure amounted to Rs. 68,000, the chief items being Rs. 1,500 spent on lighting, Rs. 6,000 on drainage, Rs. 21,000 on conservancy, Rs. 13,000 on medical relief, Rs. 8,000 on roads, and Rs. 3,000 on education. A drainage scheme and a project for providing a filtered water-supply are under preparation.

Möngküng (Burmese, *Maingkaing*).—A large State in the eastern division of the Southern Shan States, Burma, lying between 21° 15′ and 22° 4′ N. and 97° 8′ and 97° 58′ E., with an area of 1,643 square miles. It is bounded on the north by the Northern Shan State of Hsīpaw; on the east by Hsīpaw, Kehsi Mansam, and Möngnawng; on the south by Laihka; and on the west by Lawksawk. The eastern part and the centre of the State are drained by the head-waters of the Nam Teng; and the large plain surrounding Möngküng (population, 1,190), the residence o

the Myoza, is almost entirely under cultivation and thickly populated. The western side is watered by the Nam Lang. Excepting the central plain and the valley of the Nam Lang, the country is formed of low hills covered with oak and pine. Rice is grown in the central plain and in the bottoms of valleys where water is obtainable, and a good deal is exported. *Taungya* cultivation is but little practised. On the hills towards the western border, and on the range lying west of the capital, poppy is cultivated by the Palaungs. The population in 1901 was 30,482, distributed in 627 villages. Of the total, about 27,500 were Shans and nearly 2,000 Palaungs, the rest being Yins (Yanglam) and Taungthus. Like other States in this neighbourhood, Möngküng has only recently recovered from the dire effects of the disturbances that followed the annexation of Upper Burma. The revenue in 1903-4 amounted to Rs. 34,000 (nearly all from *thathameda*); and the chief items of expenditure were Rs. 15,000 tribute to the British Government, Rs. 7,400 officials' salaries and administration charges, Rs. 8,900 privy purse, and Rs. 2,700 public works.

Möngmit State.—A Shan State, at present administered as a temporary measure as a subdivision of the Ruby Mines District, Upper Burma. It lies between 22° 44′ and 24° 6′ N. and 96° 10′ and 97° 38′ E., comprising the townships of MÖNGMIT and KODAUNG, with an area of about 3,562 square miles. The population in 1901 was 44,208. Except in the valley of the Shweli, it is mountainous. At the time of the annexation of Upper Burma Möngmit was in a very disturbed condition; and in 1889 Saw Maung, who had been driven out by rebels from the Sawbwaship of Yawnghwe, was appointed regent as an experimental measure, with a view to the restoration of order. It was not long, however, before it became apparent that Saw Maung was unable to manage the affairs of the State, and in 1892 the administration was taken over by Government. The State is about to be restored to the Sawbwa, who has attained his majority. The revenue in 1903-4 was Rs. 14,900.

Möngmit Township (Burmese, *Momeik*).—A tract occupying the greater part of the Möngmit State, and at present administered as a township of the Ruby Mines District, Upper Burma. It lies between 22° 44′ and 24° 6′ N. and 96° 10′ and 97° 10′ E., with an area of 2,802 square miles. In 1901 the population was 22,581, composed of Burmans, Shans, Palaungs, and Kachins in the ratio of 10, 5, 4, and 2. It contains 236 villages, the head-quarters being at Möngmit (population, 1,767), on a tributary of the Shweli. The township occupies almost the whole drainage of the Shweli river. Away from the Shweli valley it is hilly and forest-clad, and a large number of the inhabitants are occupied in tree-felling and in bamboo-cutting under forest contractors. Rice is exported to Mogok and Tawngpeng.

Möngnai (Burmese, *Mone*).—A large State in the eastern division of the Southern Shan States, Burma, lying between 20° 22′ and 21° 12′ N. and 97° 33′ and 98° 56′ E., with an area (including its dependency of Kengtawng or Kyaingtaung) of 2,717 square miles. A large isolated circle abuts on the eastern boundary of Yawnghwe, bringing the effective western boundary to 97° 17′ E. The State is bounded on the east by Kengtung, from which it is separated by the Salween; on the south by Möngpan and Mawkmai; on the west by Möngsit and Laihka; and on the north by Laihka, Möngnawng, and Kenghkam. Möngnai proper occupies only the western half of this area. The eastern half forms the Kengtawng dependency, the two being separated by a long range, running north and south, averaging about 4,000 feet in height. The Nam Teng river, entering the State near its north-west corner, runs eastward till it doubles round the northern end of this range, and waters the greater part of Kengtawng. The southern part of Möngnai proper is watered by the Nam Tawng, which runs in a southerly direction past the capital to join the Nam Teng, the valley being shut in on the west by a lofty range of mountains that forms the greater part of the boundary of the State. In the central plain watered by the Nam Tawng, and in the wide valley of the Nam Teng, rice is grown in considerable quantities, the latter area being particularly fertile. Sugar-cane and tobacco are cultivated here and there, while gardens contain betel, coco-nut, oranges, and other fruits. Large quantities of Shan paper are manufactured from the bark of a species of mulberry, and exported to other States and to Burma for use in decorations, and for the manufacture of umbrellas, &c. The early records of Möngnai are vague and unsatisfactory. The part it played after annexation is briefly touched upon in the article on the SOUTHERN SHAN STATES. The population of the State in 1901 was 44,252, distributed in 981 villages. Of this total, more than five-sixths are Shans. The Taungthus are fairly well represented (their total being over 4,000), and there are a certain number of Yins. The Sawbwa's head-quarters are at Möngnai (population, 3,078), near the Nam Tawng, once the largest place in the Southern Shan States, and still of considerable importance. The American Baptist Mission has a station at Möngnai, with a hospital attached which does valuable work locally. The revenue in 1903–4 amounted to Rs. 46,000 (mainly from *thathameda*); and the main items of expenditure were Rs. 20,000 tribute to the British Government, Rs. 18,000 spent on official salaries and general administration, Rs. 4,800 credited to the privy purse, and Rs. 3,000 spent on public works.

Möngnawng (Burmese, *Maingnaung*).—A large State in the eastern division of the Southern Shan States, Burma, lying between

20° 59′ and 21° 55′ N. and 97° 48′ and 98° 49′ E., with an area of 1,575 square miles. It is bounded on the north by Kehsi Mansam, Kenglön, and Möngsang; on the east by the Shan States of Manglön and Kengtung, from which it is separated for the most part by the Salween river; on the south by Kenghkam and Möngnai; and on the west by Laihka and Möngküng. The State at one time formed part of Hsenwi, but was made independent in 1850. In 1886 its ruler joined the Linbin confederacy, and was involved in the disturbances which culminated in the Linbin prince's surrender. The greater part of the State is open undulating country, with here and there jagged limestone hills rising from it. To the north and west are regular downs, almost treeless; to the south scrub jungle; to the east are rugged hills extending towards the Salween. The only river of importance is the Nam Pang, adjoining whose banks are many fertile paddy-fields. Rice is grown both on these plains and in *taungyas*, the level area round Möngnawng (population, 693), the residence of the Myoza, in the northern part of the State, being especially fertile. The population in 1901 was 39,102, distributed in 777 villages. Of the total more than 37,000 were Shans, the rest being Yins, Palaungs, and other hill tribes. The revenue in 1903-4 amounted to Rs. 23,000 (mainly from *thathameda*); and the chief items of expenditure were Rs. 10,000 tribute to the British Government, Rs. 6,700 official salaries and administration charges, Rs. 3,300 privy purse, and Rs. 3,000 public works.

Möngpai (Burmese, *Mobye*).—State in the central division of the Southern Shan States, Burma, lying between 19° 20′ and 19° 53′ N. and 96° 36′ and 97° 9′ E., with an area of 660 square miles. It is the most south-westerly of the Shan States, being bounded on the south and east by Karenni; on the north by Loilong and Sakoi; and on the west by the Districts of Toungoo and Yamethin. The general character of the country is hilly, rising gently from the Nam Pilu (or Balu *chaung*), which traverses the north-east corner. The western part of the State consists of a confused mass of hills running generally north and south, and culminating in a ridge about 5,000 feet in height, which separates the basins of the Sittang and the Salween. Most of the level rice land is situated near the Pilu, and is irrigated from it by water-wheels, or by the diversion of small affluents. In the hills *taungya* (shifting) cultivation prevails. The Shans and Taungthus till the usual homestead gardens, in which mustard, tobacco, sugar-cane, cotton, and various fruits and vegetables are grown; and maize and millet are cultivated by the Red Karens. The population of the State in 1901 was 19,351, distributed in 158 villages, and consists of Padaungs, Zayeins, Taungthus, and other Karen tribes, besides a few Shans. Only 4,612 persons were returned as Buddhists, and 13,380

as Animists. The Padaung speakers numbered 9,321, the Shan speakers 2,837, and the Taungthu speakers 1,416. The revenue of the State amounts to Rs. 8,000, derived almost entirely from *thathameda*. In 1903–4 the expenditure included Rs. 3,000 tribute to the British Government, Rs. 2,200 spent on general administration, Rs. 1,500 on the pay of officials, and Rs. 1,200 made over to the privy purse. The head-quarters of the Sawbwa are at Möngpai (population, 642), on the bank of the Pilu river.

Möngpan (Burmese, *Maingpan*).—State in the eastern division of the Southern Shan States, Burma, lying (with its trans-Salween dependencies) on both sides of the Salween river, between 19° 40′ and 20° 32′ N. and 98° 2′ and 99° 12′ E., with an area of 2,300 square miles. On the north it is bounded by Möngnai; on the north-east by Kengtung; on the east and south by Siam; on the west by Mawkmai. Little is known of the early history of Möngpan. It went through troublous times after the annexation of Upper Burma, and was ravaged by the troops of the Linbin confederacy in 1886. The negotiations between the British and Siamese Governments in connexion with its trans-Salween dependencies are alluded to in the article on the SOUTHERN SHAN STATES. The centre of the State proper is a large fertile plain surrounding the capital, Möngpan. On all sides rise low hills covered with scrub jungle, culminating in a range about 5,000 feet in height, on the other side of which runs the Nam Teng. Between the central plain and the Salween, to the south and east, and towards the northern border is a confused mass of mountains. Of the trans-Salween dependencies, Möngton is the most northerly. It borders on the Kengtung State; and population is confined practically to the narrow valley of the Nam Ton, which joins the Me Hang, a tributary of the Salween, from which the neighbouring dependency of Mönghang takes its name. This sub-State is mostly covered with jungle, its main feature being Loi Hkilek, a mountain nearly 7,000 feet high. On the border of the State, along the Salween west of Mönghang, is the dependency of Möngkyawt, a mountainous tract, with a small population, confined to the valley of the Nam Kyawt, which runs through the sub-State first eastwards, then westwards, and then northwards, to join the Salween. The minute dependency of Mönghta lies in the basin of the Nam Hta, a tributary of the Nam Kyawt, to the west of Möngkyawt. Cultivation is practically confined to rice, both irrigated and *taungya*; and the central plain round Möngpan (population, 1,355), the residence of the Sawbwa, is very fertile. The State contains valuable teak forests, which in 1904 brought in a revenue of Rs. 17,700. The population in 1901 was 16,629 (distributed in 196 villages), of whom nearly all were Shans, only a few being Taungthus. The revenue in 1903–4 amounted

to Rs. 15,000 (mainly from *thathameda*); the items of expenditure were Rs. 5,000 tribute to the British Government, Rs. 7,700 official salaries, &c., and Rs. 2,300 privy purse.

Möngpawn (Burmese, *Maingpun*).—A small State in the eastern division of the Southern Shan States, Burma, lying between 20° 24′ and 21° 0′ N. and 97° 20′ and 97° 32′ E., with an area of 371 square miles. It lies in the Upper Nam Pawn valley, and is bounded on the north by Laihka; on the east by Laihka and Möngsit; on the south by Hsahtung; and on the west by Wanyin, Nawngwawn, Namhkok, Hopong, and an outlying portion of Möngnai. Möngpawn played an important part in the history of the Shan States after the annexation of Upper Burma, its chief being the most active supporter of the Linbin prince. The State consists of the narrow valley of the Nam Pawn, on which rice irrigated by water-wheels is cultivated, the other main crops being *taungya* rice, cotton, sugar-cane, and *thanatpet*. The population in 1901 was 13,143, of whom about 7,000 were Shans and about 4,500 Taungthus; the former live in the valley, the latter on the hill-slopes. A few Yins are also found in the State. In 1901 the number of villages was 212, the residence of the Sawbwa being at Möngpawn (population, 1,230), on the Nam Pawn, where it is crossed by a bridge on the main road between Burma and Kengtung. The revenue in 1903–4 was Rs. 14,000 (mainly from *thathameda*); and the chief items of expenditure were Rs. 4,500 tribute to the British Government, Rs. 3,000 official salaries, &c., and Rs. 5,300 privy purse.

Möngsang.—State in the Southern Shan States, Burma. *See* MÖNGHSU.

Möngsit (Burmese, *Maingseik*).—State in the eastern division of the Southern Shan States, Burma, lying between 20° 20′ and 20° 47′ N. and 97° 27′ and 97° 47′ E., with an area of 303 square miles. It is bounded on the north and east by Möngnai; on the south by Mawkmai; and on the west by Möngpawn. The State consists of a plain about 12 miles long, the northern part lying in the basin of the Nam Teng, the southern in that of the Nam Pawn. The chief crop is lowland rice, a large part depending for irrigation upon the rainfall, but rice is also cultivated in *taungyas*. The population in 1901 was 9,013, distributed in 184 villages. Of the total, about 6,500 were Shans, 1,200 Yins (Yangsek), and 1,000 Taungthus. Möngsit (population, 1,223), the residence of the Myoza, lies in a valley towards the north of the State. The revenue in 1903–4 amounted to Rs. 11,000 (mostly from *thathameda*); and the chief items of expenditure were Rs. 4,500 tribute to the British Government, Rs. 3,800 general administration charges, and Rs. 2,500 privy purse.

Montgomery District.—District in the Lahore Division of the

Punjab, lying between 29° 58′ and 31° 21′ N. and 72° 27′ and 74° 8′ E., with an area of 4,771 square miles. It is named after the late Sir Robert Montgomery, sometime Lieutenant-Governor of the Punjab. In shape it is a rough parallelogram, whose south-east side rests on the Sutlej, while the Rāvi flows through the District parallel to the Sutlej and not far from the north-west border. It is bounded by the Districts of Lahore on the north-east, Jhang on the north-west, and Multān on the south-west, while on the south-east it marches with the Native State of Bahāwalpur and the British District of Ferozepore.

Physical aspects.

Except along the river banks and where watered by canals, Montgomery is practically a waste of sand. The desert strip or Bār to the north of the Rāvi is a continuation of the Jhang Bār. The Gugera branch of the CHENĀB CANAL has now been extended to it, and the country is rapidly assuming a fertile appearance, though part of it is still desert. On either bank of the Rāvi is a strip of riverain cultivation; here inundation canals carry the water for varying distances up to 23 miles, population is fairly thick, and cultivation good. South of this tract stretches the Dhaia or central ridge of the District. Absolutely bare in a dry season, this tract produces a good crop of grass if the rains are plentiful. The head-quarters of the District are situated in the middle of it. The Dhaia is bounded on the south by the high bank which marks the ancient bed of the Beās, south of which is the Sutlej valley, watered by the Khānwāh and Upper Sohāg canals of the UPPER SUTLEJ CANAL system. The Deg torrent enters the District from Lahore, and after a course of 35 miles through the Gugera *tahsīl* flows into the Rāvi.

Montgomery contains nothing of geological interest, being situated entirely on the alluvium. The flora is essentially of the Bār or desert type, *jand* (*Prosopis*), *van* (*Salvadora*), *karī* (*Capparis aphylla*), and a tamarisk (*Tamarix articulata*) abounding where the soil can support them; but wide stretches show nothing but saltworts (*lāna*, *lāni*, &c.), such as *Haloxylon recurvum*, *Salsola foetida*, *Suaeda*, &c. The type is, however, changing with the spread of cultivation. In the low grounds near the Rāvi there is a good deal of *kīkar* (*Acacia arabica*), which may possibly be indigenous in this part of the Punjab and in Sind.

Wolves and wild cats are the principal beasts of prey. 'Ravine deer' (Indian gazelle) are fairly numerous, but *nīlgai* and antelope are confined to the banks of the Rāvi on the Lahore border. Wild hog are becoming scarce as cultivation advances.

The climate is very dry and the temperature in summer is oppressive. From May to the middle of October, and especially in June and July, the heat during the day is intense; but, except on the frequent occa-

sions when heavy dust-storms blow, the nights are comparatively cool. The District is fairly healthy. Pneumonia is common in the winter, caused by the intense cold and dryness of the air. Fevers are prevalent, as the majority of the population live along the banks of the rivers and in the canal tracts.

The rainfall is generally scanty, the annual average ranging from 8 inches at Pākpattan to 10 inches at Montgomery town. The average number of rainy days is twenty-three between April and October, and eight during the winter.

History.

In the time of Alexander the District of Montgomery appears to have been held by the Malli, who occupied the cities of KAMĀLIA and HĀRAPPA taken by the Macedonian conqueror. All that is known of its history during the next 2,000 years is summarized in the paragraph on Archaeology and in the articles on PĀKPATTAN and DĪPĀLPUR. After the hold of the Mughal empire had relaxed, the District was divided among a number of independent tribes engaged in a perpetual warfare with one another, and with invaders belonging to the Sikh confederacies. The most important of the Muhammadan tribes were the Kharrals, Siāls, Wattus, and Hans, while the Sikh Nakkais occupied a considerable part of the District. Between 1804 and 1810 Ranjīt Singh obtained possession of the whole District except a strip on the Sutlej, held, on payment of tribute, by the Nawāb of Bahāwalpur, and occupied in default of payment by the Lahore government in 1830. About 1830 all but the Dīpālpur *tahsīl* and the cis-Rāvi portion of Gugera was entrusted to Dīwān Sāwan Mal. The Kharrals and Siāls took the opportunity of the first Sikh War to rise against the Sikhs, but were suppressed. British influence extended to the District for the first time in 1847, when an officer, under orders from the Resident at Lahore, effected a summary settlement of the land revenue. Direct British rule commenced on the annexation of the Punjab in 1849, when a District was formed with its head-quarters at Pākpattan, including as much of Montgomery as now lies in the Bāri Doāb. The trans-Rāvi portion of the District was added in 1852, and the head-quarters were then moved to Gugera. In 1865, when the railway was opened, a village on the railway, thenceforward known as MONTGOMERY, became the capital.

During the Mutiny of 1857 the District formed the scene of the only rising which took place north of the Sutlej. Before the end of May, emissaries from Delhi crossed the river from Sirsa and Hissār, where open rebellion was already rife, and met with a ready reception from the Kharrals and other wild Jat clans. The District authorities, however, kept down the threatened rising till August 26, when the prisoners in jail made a desperate attempt to break loose. At the same time Ahmad Khān, a famous Kharral leader, who had been

etained at Gugera, broke his arrest, and, though apprehended, was eleased on security, together with several other suspected chieftains. In September 16 they fled to their homes, and the whole country ose in open rebellion. Kot Kamālia was sacked; and Major Chamberain, moving up with a small force from Multān, was besieged for some ays at Chichawatni on the Rāvi. The situation at the civil station emained critical till Colonel Paton arrived with substantial reinforceients from Lahore. An attack which took place immediately after ieir arrival was repulsed. Several minor actions followed in the open eld, until finally the rebels, driven from the plain into the wildest ungles of the interior, were utterly defeated and dispersed. Our troops hen inflicted severe punishment on the insurgent clans, destroying heir villages, and seizing large numbers of cattle for sale.

Mounds of brick débris at Harappa, Kamālia, Akbar, Satghara, nd Bavanni mark the sites of forgotten towns. The coins found at Harappa and Satghara prove that both were inhabited in the time of he Kushan dynasty, while General Cunningham upholds the identity f Kamālia and Harappa with cities of the Malli taken by Alexander n 325 B.C. Carved and moulded bricks have been found at Bavanni nd Akbar, and it is not improbable that Harappa was one of the laces visited by Hiuen Tsiang. The fortified town of Dīpālpur is uilt on an old Kushan site. The fortifications themselves are very ncient, though it is impossible to determine their date. All that can e said is that they are older than the visit of Tīmūr (1398). The omb of the famous saint Bāba Farīd, at Pākpattan, is supposed to ave been built about 1267 and was repaired by Fīroz Shāh. The tyle is simple and destitute of ornament. There are shrines at hergarh and Hujra, decorated with floral designs and dating from bout 1600.

Population.

Montgomery District contains 3 towns and 1,371 villages. Its opulation at the last four enumerations was: (1868) 360,445, (1881) 26,529, (1891) 499,521, and (1901) 497,706. In easons of drought large numbers of people migrate o the Chenāb Colony, where their friends or relatives have obtained rants; but when there is a prospect of a good harvest they return to ieir homes. The District is divided into four *tahsīls*: Montgomery, Gugera, Dīpālpur, and Pākpattan, the head-quarters of which re at the places from which each is named. The towns are the iunicipalities of Montgomery, the head-quarters of the District, Kamālia, and Pākpattan. The principal statistics of population in 901 are shown in the table on the next page.

Muhammadans number 355,892, or more than 72 per cent. of the otal; and there are 118,837 Hindus and 22,602 Sikhs. The density f population is considerably below the average for the Punjab

(209 persons per square mile), and varies with the extent of cultivation from 52 in the Montgomery *tahsīl* to 184 in Dīpālpur. The decrease of 18 per cent. in the Montgomery *tahsīl* is due almost entirely to migration into the Chenāb Colony. The language of the people is a form of Western Punjābi, very much tinged by the Multānī dialect.

Tahsīl.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Montgomery .	1,471	2	218	76,573	52·1	− 18·2	4,732
Gugera . .	824	...	341	119,622	145·2	+ 5·4	3,907
Dīpālpur . .	978	...	458	179,735	183·8	− 0·4	6,378
Pākpattan .	1,339	1	354	121,776	90·8	+ 8·8	4,046
District total	4,771*	3	1,371	497,706	104·4	− 0·4	19,063

* The only figures available for the areas of *tahsīls* are those derived from the revenue returns, and the *tahsīl* densities have been calculated on the areas given in the revenue returns for 1900–1. These returns do not always cover the whole of the country comprised in a *tahsīl*, and hence the total of the *tahsīl* areas does not agree with the District area as shown in the table above, which is the complete area as calculated by the Survey department. The tracts not included in the revenue survey are as a rule uninhabited or very sparsely populated.

Here, as in all the western Districts of the Punjab, where the influence and example of the frontier races is strong, caste is little more than a tradition, and the social unit is the tribe. Thus the terms Jat and Rājput are of the most indefinite significance, Jat including all pastoral or agricultural tribes who (being Muhammadans of Indian origin) do not distinctly claim Rājput rank. The pastoral clans inhabiting the District bear collectively the name of the 'Great Rāvi' tribes, in contradistinction to the purely agricultural classes, who are contemptuously nicknamed the 'Little Rāvi.' Their principal subdivisions include the Kāthia, who have been identified with the Kathaeoi of Arrian; the Kharral, the most turbulent and courageous of all the clans; together with the Fattiāna, Murdāna, Vainiwāl, Baghela, Wattu, and Johiya. The Great Rāvi Jats possess a fine physique, and have handsome features; they lay claim to a Rājput origin, and look down upon all who handle the plough. In former days they exercised practical sovereignty over the agricultural tribes of the lowlands. There were 56,000 persons returned as Jats and 53,000 as Rājputs in 1901. The Mahtams (12,000), Arains (34,000), and Kambohs (23,000) are hard-working tribes, the two latter being, as elsewhere, first-rate cultivators. The Kharral (21,000), Baloch (13,000), and Khokhar (8,000) are chiefly pastoral. Brāhmans number only 4,000 and Saiyids 5,000. Arorās (51,000) are the principal commercial tribe, and there are 5,000 Khattrīs and 10,000 Muhammadan Khojas. Of the artisan and menial classes, the chief

are the Chūhrās (scavengers, 31,000), Julāhās (weavers, 23,000), Kumhārs (potters, 20,000), Māchhis (fishermen and water-carriers, 18,000), Mochīs (cobblers, 16,000), Nais (barbers, 7,000), Mīrāsīs (village minstrels, 9,000), Kassābs (butchers, 6,000), Sonārs (goldsmiths, 4,000), and Tarkhāns (carpenters, 12,000). Chamārs, so common in the Eastern Punjab, are hardly represented. Nearly 50 per cent. of the population are supported by agriculture, 20 per cent. by industries, and 5 per cent. by commerce.

A branch of the Reformed Presbyterian Mission was established at Montgomery town in 1895. In 1901 the District contained 314 native Christians.

Agriculture.

The scanty and uncertain rainfall makes systematic cultivation in unirrigated land precarious, and agriculture depends almost entirely on artificial irrigation or river floods. The prevailing soil of the District is loam, but sandy and clay soils are also found; soils impregnated with soda and other salts are not uncommon. The spring harvest (which in 1903–4 occupied 69 per cent. of the total area harvested) is sown from the middle of September to the middle of December; the autumn harvest is sown chiefly in June, July, and August, except cotton, which is sown as early as May.

The District is held chiefly by small peasant proprietors; but large estates cover about 491 square miles, and lands leased from Government 220 square miles. The area for which details are available from the revenue records of 1903–4 is 4,619 square miles, as shown below:—

Tahsil.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Montgomery .	1,472	96	33	230
Gugera . .	824	162	66	205
Dīpālpur . .	984	475	355	300
Pākpattan . .	1,339	331	196	260
Total	4,619	1,064	650	995

About 837 square miles were harvested in 1903–4. Wheat is the chief spring crop, covering 354 square miles; gram and barley covered 89 and 19 square miles. In the autumn, cotton is the principal crop, covering 64 square miles; rice is the chief food-crop (27 square miles), followed by the great and spiked millets, *jowār* and *bājra* (22 and 26 square miles), pulses (18 square miles), and maize (16 square miles).

The cultivated area fluctuates violently from year to year according to the rainfall and the amount of water in the rivers; and the increasing tendency to leave the District in bad years and to seek employment in the Chenāb Colony has already been mentioned. The

chief prospects of improvement in the agricultural conditions lie in the direction of increased irrigation. The Sohāg Pāra Colony, established on Government lands irrigated by the canals of the UPPER SUTLEJ CANAL system, has a population of over 25,000, cultivating about 21,000 acres. Loans for the construction of wells are popular, and during the five years ending 1904 more than Rs. 22,000 was advanced under the Land Improvement Loans Act. Nothing has been done in the way of improving the quality of the crops grown.

Camels are the most important live-stock of the District, and a large proportion of the population returned as agricultural earn their chief livelihood by camel-breeding. The horses bred in the country on the Lahore border had a great reputation in ancient times. The District board now maintains two horse and two donkey stallions. The stud farm of the 11th Prince of Wales's Own Lancers is situated at Probynābād in the Dīpālpur *tahsīl*. The District breeds all the cattle it requires, and a considerable surplus is exported. The cows are famous as the best milkers in the Province. Buffaloes are but little used.

Of the total cultivated area in 1903–4, 650 square miles were irrigated, 223 square miles being supplied from wells, 103 from wells and canals, 307 from canals, and 17 from streams and tanks, in addition to 190 square miles which were irrigated or moistened by inundation from the Sutlej. Ten villages north of the Rāvi are irrigated from the Gugera branch of the CHENĀB CANAL, which is designed to water 45 square miles; but the chief canal-irrigation is near the Sutlej from the Khānwāh and Upper and Lower Sohāg canals of the UPPER SUTLEJ CANAL system, from which it is proposed to irrigate ultimately about 400 square miles. Some small canals from the Deg and Rāvi serve a small area in the north of the District, and the spill water from the Sutlej is controlled by dams and channels in many places. Except in the riverain tracts, wells are of masonry and worked with Persian wheels by cattle; the District has 11,546 masonry wells, besides 1,536 lever wells, water-lifts, and unbricked wells.

The District, which forms a Forest division, contains 87 square miles of 'reserved' and 703 of 'unclassed' forests under the Forest department. The forest growth consists chiefly of tamarisk (*Tamarix orientalis*), *jand* (*Prosopis spicigera*), leafless caper (*Capparis aphylla*), and *van* (*Salvadora oleoides*), with a considerable crop of *munj* grass (*Saccharum Sara*). In 1903–4 the total receipts were 1·7 lakhs. The wood is chiefly sold to the North-Western Railway for fuel, while the forests afford valuable fodder reserves. The District also contains 1,804 square miles of 'unclassed' forests and Government waste under the control of the Deputy-Commissioner.

The only mineral products are saltpetre and some beds of inferior

kankar or nodular limestone. Okāra contains an important saltpetre refinery. Impure carbonate of soda is also produced by burning the weed known as *khangan khār* (*Chloroxylon Griffithii*).

Trade and communications.

Various articles, such as bed-legs, boxes, toys, spinning-wheels, &c., are made of lacquered woodwork at Pākpattan, and the industry has more than a local celebrity. The cotton fabrics of the same place are of good quality, and very good cotton prints are prepared at Kamālia. Cotton carpets are made at Kamālia and in the Central jail; and carpets, both cotton and woollen, are woven at an orphanage at Chak Bāba Khem Singh established by Bāba Sir Khem Singh Bedi. Vessels of brass and white metal are made in a few places. Silk is used to a small extent for embroidery, and in the manufacture of *lungīs*. There are four cotton-cleaning factories in the District, at Montgomery, Dīpālpur, and Okāra. The three which were working in 1904 gave employment to 86 persons.

The principal exports are wheat, cotton, oilseeds, wool, hides, and *ghī*; and the principal imports are millets, rice, sugar, cloth, hardware, and piece-goods. Wheat, wool, cotton, and oilseeds go chiefly to Karāchi. Kamālia and Pākpattan are the only trading towns of importance.

The North-Western Railway from Lahore to Multān runs through the District, and takes practically all the export and import trade. The District has only 5 miles of metalled road; but as there is no wheeled traffic the want is not felt, and it is traversed in all directions by broad unmetalled roads, the most important being the trunk road from Lahore to Multān, and that from Jhang via Pākpattan to the Sutlej, which is a great route for caravans from Afghānistān bound to Delhi. The total length of unmetalled roads is 1,079 miles, of which 25 are under the Public Works department, and the rest are maintained by the District board. The Rāvi is crossed by fourteen and the Sutlej by ten ferries, but there is practically no traffic up and down these rivers.

Famine.

The great famines of 1783, 1813, and 1833 all affected this District, while the famine of 1860–1 was severely felt, and there was considerable distress in 1896–7. Owing to the extremely small proportion of cultivation depending on rainfall, real famine such as occurs from a total or partial failure of the crops is not likely to affect the District; but, on the other hand, the effect of the shortage of fodder for the cattle is most serious, as large numbers die, and with the half-starved animals that remain it is impossible to plough and irrigate more than half the area that can be cultivated in a good year. The area matured in the famine year 1899–1900 amounted to 65 per cent. of the normal.

The District is in charge of a Deputy-Commissioner, with three

Assistant or Extra-Assistant Commissioners, one of whom is in charge of the treasury and another is District Judge. Montgomery is also the head-quarters of the Executive Engineer in charge of the Upper Sutlej Canals, and the Extra-Assistant Conservator in charge of the Montgomery Forest division.

Administration.

The Deputy-Commissioner as District Magistrate is responsible for criminal justice, and civil judicial work is under the District Judge. Both are supervised by the Divisional Judge of the Multān Civil Division, who is also Sessions Judge. There is one Munsif, who sits at head-quarters. Burglary and cattle-theft are the chief forms of crime.

The first summary settlement, made between 1848 and 1851, was based on a scrutiny of the revenue returns of the Sikhs. The main defect of the assessment was its inequality of distribution. A second summary settlement was completed in 1852, and local knowledge was then available to adjust the demand to the varying capacity and resources of estates with a considerable degree of fairness. The regular settlement was begun by Mr. Vans Agnew in 1852, and completed by Captain Elphinstone in 1856. Mr. Vans Agnew proposed a fluctuating assessment on land irrigated by canals or floods, but it was finally decided to impose a water-rent. This was to be paid for all canal-irrigated land, in addition to the ordinary revenue assessed at rates for unirrigated land; but remissions could be claimed if the supply of water failed. The total demand so fixed amounted to 3·4 lakhs.

The settlement was revised between 1868 and 1872. A system of fixed assessments was continued in the Rāvi *tahsīls* (Gugera and Montgomery), the revenue consisting of a lump sum for each well in use (Rs. 8–12), a charge of from 8 annas to R. 1 per acre on all cultivation, and a rate on all new fallow of 4 or 6 annas per acre. In 1879 fluctuating assessments were introduced in the riverain villages of this tract. All cultivable land was assessed at a fixed rate of 1 or 1½ annas an acre, and a charge of Rs. 10 per wheel was levied on each well worked during the year, while, in addition, fluctuating crop rates were framed for different forms of irrigation, varying from Rs. 1–10 to R. 0–12 per acre. Experience showed that the new system pressed hardly on the flood lands, and the rates were modified three times before 1886. In 1887 a still more lenient system was adopted, which practically assessed all crops at R. 1 an acre. This was extended to an increasing number of estates, so that by 1892–3 364 villages were under fluctuating assessments, and the demand had fallen from Rs. 85,000 to Rs. 31,000. In 1891 the Rāvi *tahsīls* again came under settlement. A fixed demand was imposed on wells, determined by the area it was estimated they could irrigate during the

year. All crops actually maturing on areas supplied by wells in excess of this estimate were liable to assessment at a rate per acre which was the same for all crops, though it varied in different tracts. The result of reassessment in the Rāvi *tahsīls* was an increase of a quarter of a lakh.

The system adopted at the regular settlement was no more successful in the Sutlej *tahsīls* (Pākpattan and Dīpālpur). It was found that the people wasted water, for which they were paying next to nothing, and the canal tracts were not yielding their fair share of the public burdens. It was therefore decided to adopt Mr. Vans Agnew's original proposals in carrying out the revised settlement. Thus the fixed revenue of a village consisted of the amount which would have been assessed if it had no source of irrigation, plus a charge for each well it contained. In addition, villages taking canal water had to pay separately a sum proportionate to the area of crops matured by its means, as calculated by the canal officer. The new Sohāg Pāra Colony, established in 1888–91, was also placed under a fluctuating assessment. Consolidated rates for land revenue and canal water were imposed, varying from Rs. 3–4 to Rs. 1–12 per cultivated acre for irrigated land, while a uniform rate of 12 annas was imposed on 'dry' land. The total assessment of the two Sutlej *tahsīls* for the year preceding the latest settlement (1897–8) was 2·2 lakhs. The latest revision was made between 1894 and 1899; and the new demand, including the estimated fluctuating revenue, was 3·5 lakhs, representing 40 per cent. of the net 'assets.' The land revenue of the whole District in the current settlement is thus about 5 lakhs, an increase of 47 per cent. on the previous assessment.

The grazing tax (*tirni*) is an inheritance from the Sikhs. Captain Elphinstone imposed it on all cattle, including well-bullocks. In 1857 the tax produced Rs. 32,000, in 1872 Rs. 1,08,000, in 1881 Rs. 48,000. In 1870 Government waste lands were divided into blocks and leased annually to farmers, who then realized grazing dues at fixed rates for all cattle grazing in their respective blocks. This system, however, led to extortion and was given up in 1879. In 1886 the Multān system was introduced, by which each *tirni*-paying village contracted to pay a fixed annual sum for a period of five years. In March, 1891, the sum for the succeeding five years was fixed at Rs. 1,41,000. The colonization of the Sandal Bār seriously curtailed the grazing grounds, and in 1899 the system was again altered. The quinquennial assessment was retained for camels only, and the grazing for cattle, sheep, &c., was auctioned annually in large blocks. The amount realized under the new system in 1903–4 was Rs. 46,000.

The collections of land revenue and of revenue from all sources have been, in thousands of rupees :—

	1880-1.	1890-1.	1900-1.	1903-4.
Land revenue . .	4,87	5,36	3,41	4,19
Total revenue . .	5,82	6,62	5,18	6,54

The District contains three municipalities: MONTGOMERY, KAMĀLIA, and PĀKPATTAN. Outside these, the affairs of the District are managed by a District board, whose income, derived mainly from a local rate, amounted in 1903-4 to Rs. 50,000. The expenditure was Rs. 43,000, schools and dispensaries forming the largest items.

The regular police force consists of 449 of all ranks, of whom 21 are municipal police. The Superintendent usually has 4 inspectors under him. The village watchmen number 584. There are 17 police stations, one outpost, and 5 road-posts. Trackers are enlisted in the District police force, and one is kept at each police station. They often render most valuable assistance in the pursuit of criminals and stolen cattle. The combined Central and District jail at head-quarters has accommodation for 1,522 prisoners. The principal jail manufactures are carpets, matting, and cotton and woollen clothing.

Montgomery stands thirteenth among the twenty-eight Districts of the Province in the literacy of its population, of whom 3·8 per cent. (6·7 males and 0·4 females) are able to read and write. The proportion is highest in the Montgomery *tahsīl*. The number of pupils under instruction was: 1,505 in 1880-1; 3,371 in 1890-1; 3,097 in 1900-1; and 3,824 in 1903-4. In the last year there were 5 secondary and 37 primary (public) schools, and 2 advanced and 116 elementary (private) schools, with 125 girls in the public and 128 in the private schools. The District possesses two high schools, one the Government high school at Montgomery and the other a private school at Kamālia. The total expenditure on education in 1903-4 was Rs. 23,000, of which fees brought in Rs. 8,000, District and municipal funds contributing Rs. 10,000 and Rs. 3,000 respectively.

Besides the civil hospital at Montgomery town, the District possesses six outlying dispensaries. In 1904 the number of cases treated was 91,816, of whom 1,859 were in-patients, and 3,649 operations were performed. The expenditure was Rs. 15,000, chiefly contributed by municipal funds.

The number of persons successfully vaccinated in 1903-4 was 13,398, representing 29·9 per 1,000 of the population.

[P. J. Fagan, *District Gazetteer* (1898-9); and *Settlement Report* (1899).]

Montgomery Tahsīl.—*Tahsīl* of Montgomery District, Punjab, lying between 30° 16′ and 31° 2′ N. and 72° 27′ and 73° 26′ E., on both banks of the Rāvi, with an area of 1,472 square miles. The

population in 1901 was 76,573, compared with 93,648 in 1891, the decrease being due to migration into the Chenāb Colony. It contains the towns of MONTGOMERY (population, 6,602), the head-quarters, and KAMĀLIA (6,976); and 218 villages. The land revenue and cesses in 1903–4 amounted to Rs. 78,000. The greater part of the *tahsīl* is uncultivated. It includes on the south a narrow strip of the Sutlej valley, from which it rises abruptly into the desert uplands lying between the old banks of the Beās and the Rāvi. Farther north lie the Rāvi lowlands, interspersed with great stretches of jungle, and, beyond the river, sloping gently upwards towards the fertile plateau irrigated by the Chenāb Canal. Cultivation is confined to the lands along the river, and a few scattered patches round the wells elsewhere. The scanty cultivation accounts for the low density of population, 52 persons per square mile.

Montgomery Town.—Head-quarters of the District and *tahsīl* of the same name, Punjab, situated in 30° 39′ N. and 73° 8′ E., on the North-Western Railway. Population (1901), 6,602. In 1865 the village of Sāhīwāl was selected as the head-quarters of the District and renamed after Sir Robert Montgomery, then Lieutenant-Governor of the Punjab. Situated in the most arid and dreary part of the uplands between the Rāvi and Sutlej, the station is almost unequalled for dust, heat, and general dreariness, but is not unhealthy. It has no commercial or industrial importance, and merely consists of a bazar and the residences of the District officials. The Central jail situated here usually contains about 1,500 prisoners. The municipality was constituted in 1867. Its income and expenditure during the ten years ending 1902–3 averaged Rs. 13,100. In 1903–4 the income was Rs. 16,600, chiefly derived from octroi and school fees; and the expenditure was Rs. 15,200. It maintains a girls' school and a dispensary. The high school is managed by the Educational department. The town contains two factories for ginning cotton, of which one was working in 1904 and gave employment to 37 persons.

Monwel.—Petty State in KĀTHIĀWĀR, Bombay.

Monyo.—Western township of Tharrawaddy District, Lower Burma, lying between 17° 51′ and 18° 21′ N. and 95° 15′ and 95° 38′ E., with an area of 182 square miles. It extends along the eastern bank of the Irrawaddy, and is flat and level throughout. It is the only township of the District not traversed by the railway. The population was 34,648 in 1891, and 39,964 in 1901. The density is 219 persons per square mile, which, for Burma, is high. The township contained 172 villages in 1901, its largest urban area being Monyo (population, 3,042), the head-quarters, situated on what was once the bank of the Irrawaddy but now some distance from the stream. The area cultivated in 1903–4 was 55 square miles, paying Rs. 33,000 land revenue.

Monywa Subdivision.—Subdivision of the Lower Chindwin District, Upper Burma, lying east of the Chindwin river. It comprises the BUDALIN and MONYWA townships.

Monywa Township.—South-eastern township of the Lower Chindwin District, Upper Burma, lying between 21° 55′ and 22° 21′ N. and 95° 3′ and 95° 39′ E., from the Mu river in the east to the Chindwin river in the west, with an area of 487 square miles. The population was 71,971 in 1891, and 90,164 in 1901, distributed in 297 villages, and one town, MONYWA (population, 7,869), the head-quarters of the District. The township head-quarters are at Alon (population, 3,624), the terminus of the Sagaing-Alon branch railway, on the Chindwin, about 7 miles above Monywa. Trade has greatly increased since the annexation, and communications have been largely improved. The township, which is on the whole level and dry, contained 191 square miles under cultivation in 1903–4, and the land revenue and *thathameda* amounted to Rs. 1,89,500.

Monywa Town.—Head-quarters of the Lower Chindwin District, Upper Burma, situated in 22° 6′ N. and 95° 8′ E., on the left or eastern bank of the Chindwin river, about 50 miles north of its junction with the Irrawaddy, and 65 miles west of Sagaing, with which it is connected by a branch railway. The town, which is low-lying and fairly well shaded by tamarind-trees, is protected from the annual rise of the river by an embankment along the water's edge. It contains the usual head-quarters buildings, courthouse, and jail, all of which are situated at its northern end, as well as large barracks and a hospital for the Chindwin military police battalion. The railway station is at some little distance from the river, to the east of the civil station. The club and a good many of the houses of the European residents are close to the river bank. The town is said to derive its name (which being interpreted is 'cake village') from a baker maiden whom a king of ancient days found selling cakes, and took to himself as queen. It was of little importance at the time of annexation, the head-quarters of the *wun* being at Alon, about 7 miles farther up the river; but it has since then grown in importance and prosperity, and the last Census showed that the population had increased from 6,316 in 1891 to 7,869 in 1901, the latter total including over 1,000 natives of India. It is a fairly thriving trade centre, and one of the chief ports of call for river steamers on the Chindwin. Monywa was constituted a municipality in 1888. The municipal revenue and expenditure during the ten years ending 1901 averaged about Rs. 17,000. In 1903–4 the receipts were Rs. 26,800, including Rs. 11,800 from bazars and slaughter-houses. The expenditure was Rs. 27,000, including Rs. 6,700 spent on conservancy, Rs. 3,300 on the hospital, and Rs. 4,400 on roads. The town is well laid out and intersected by good thoroughfares. A civil hospital has

accommodation for 32 in-patients. There is no municipal school, but the Wesleyan Mission school supplies most of the higher educational needs of the town.

Moodkee.—Town and battle-field in Ferozepore District, Punjab. *See* MUDKĪ.

Mooltān.—Division, District, *tahsīl*, and town in the Punjab. *See* MULTĀN.

Morādābād District.—District in the Bareilly Division, United Provinces, lying between 28° 20′ and 29° 16′ N. and 78° 4′ and 79° 0′ E., with an area of 2,285 square miles. On the north it is bounded by Bijnor and Nainī Tāl; on the east by the State of Rāmpur; on the south by Budaun; and on the west the Ganges divides it from the Districts of Meerut and Bulandshahr. Near the Ganges lies a stretch of low *khādar* land, from which rises a high sandy ridge. The central portion of the District comprises a fertile level plain, chiefly drained by the Sot or Yār-i-Wafādār river, into which many smaller channels flow. This plain sinks gradually into the broad valley of the RĀMGANGĀ, which crosses the north-east corner of the District, cutting off a portion which borders on the Tarai and presents the usual characteristics of the sub-Himālayan tracts; many small streams rising for the most part in the Tarai flow through it. There are a few ponds in the District, but none of considerable size.

Physical aspects.

Morādābād consists almost entirely of alluvium, in which boulders of stone occasionally occur. *Kankar* or nodular limestone is obtained in all parts south-west of the valley of the Rāmgangā. The saline efflorescence called *reh* is found in the southern part of the Ganges *khādar*.

The sandy tracts in the west are extremely bare, and produce nothing spontaneously except long thatching-grass. In the richer tract near the centre trees are more common, especially near the older towns, which are shaded by fine mango groves. On the whole the District is not well wooded.

Tigers are occasionally shot in the jungles in the north-east of the District or in the Ganges *khādar*, and leopards are more common. Hog deer and wild hog are numerous in the same tracts, and *nīlgai* are found in small numbers. The wolf, fox, badger, otter, weasel, porcupine, and monkey are found more or less throughout the District. The commoner game-birds include quail, sand-grouse, grey and black partridge, wild duck of many varieties, snipe, wild geese, &c. Fish of many kinds are found in the rivers, and form an important element in the food-supply of the people.

The climate of Morādābād is generally healthy, except in the sub-montane tract which borders on the Tarai, and in the lowlands of the

Ganges and Sot. The temperature is cooler than in Districts west of the Ganges and farther from the Himālayas, and frost is common in the winter. The annual mean is about 75°, the minimum monthly temperature being 56° in January, and the maximum 90° to 92° in May or June.

The annual rainfall averages about 40 inches, varying from 35 inches in the sandy tract to 45 in the damp submontane area in the north-east. Variations are considerable, and the amount has ranged from about 20 to nearly 60 inches.

History.

Tradition ascribes great antiquity to SAMBHAL, but very little is known of the early history of the District. Prithwī Rāj, the last Hindu king of Delhi, is said to have fought, first with the half-mythical Saiyid Sālār, and later with Jai Chand, king of Kanauj. The first historical events are, however, in the early Muhammadan period. Sambhal became the seat of a series of governors, whose duties were largely taken up with suppressing revolts of the turbulent Katehriyās. In 1266 Ghiyās-ud-dīn Balban attacked Amroha, where he ordered a general massacre. In 1365 Fīroz Tughlak invaded Katehr, as Rohilkhand was then called, to punish a chief named Rai Kakāra, who had murdered the Musalmān governor. Rai Kakāra fled to Kumaun, whereupon the emperor plundered the country, and left Malik Khitāb as governor. Ibrāhīm, the famous Sultān of Jaunpur, conquered Sambhal in 1407, and placed his own deputy in the town; but a year later Mahmūd Tughlak, emperor of Delhi, expelled the intruder, and replaced his own officials. In 1473, under Sultān Husain, the Jaunpur dynasty once more established itself for a while in Sambhal. The emperor Sikandar Lodī recovered the District in 1498 for the Delhi throne, and resided at Sambhal for four years. Thenceforward the surrounding country remained a permanent fief of the imperial court. In the middle of the sixteenth century, Ahya Maran, governor of Sambhal, rebelled against Sultān Muhammad Adil, and defeated a force sent against him by the emperor. In the succeeding year, Rājā Mittar Sen, Katehriyā, seized Sambhal, and Ahya Maran attacked him. A fierce battle ensued at Kundarkhī, in which the Rājā sustained a crushing defeat. Under Humāyūn, Alī Kulī Khān was governor of Sambhal and repelled an incursion of the still-independent Katehriyās. In 1566 some Mirzas, descendants of Tīmūr, rebelled and seized Akbar's officers, whom they confined in the fort of Sambhal. Husain Khān marched against them, and they fled to Amroha. On his following them up to their retreat, they finally escaped across the Ganges. Shāh Jahān appointed Rustam Khān governor of Katehr; and the latter founded Morādābād about 1625, calling it after Murād Bakhsh, one of the imperial princes, who was afterwards murdered by Aurangzeb. After the death of that

emperor, and subsequent decline of the central power, the Katehriyās revolted, becoming independent for a time, and the Musalmān governor removed his head-quarters to Kanauj. On the rise of Alī Muhammad, the Rohilla chief, an attempt was made by the governor of Morādābād to crush him; but the new leader was victorious and by 1740 had acquired the whole of this District. Rohilla rule lasted till 1774, when Rohilkhand became subject to Oudh, and the District passed to the British with other territory by the cession of 1801. Very soon afterwards, in 1805, the notorious Amīr Khān, a native of Sambhal, swept through the District with a swarm of Pindāri horsemen, but was not successful in his attempt to plunder the Government treasury.

Apart from a few serious riots the District remained peaceful till 1857. News of the Meerut rising arrived on May 12 in that year, and on the 18th the Muzaffarnagar rebels were captured. Next day, however, the 29th Native Infantry mutinied, and broke open the jail; but on the 21st they united with the artillery in repelling a Rāmpur mob. On the 31st the Rāmpur cavalry, who had gone to Bulandshahr, returned; and on the succeeding day news of the Bareilly and Shāhjahānpur outbreaks arrived. On June 3 the 29th Native Infantry fired on the officials, who then abandoned the station, and reached Meerut in safety on the 5th. Ten days later, the Bareilly brigade arrived at Morādābād, and shortly afterwards marched on for Delhi, taking with them the local mutineers. At the end of June, the Nawāb of Rāmpur took charge of the District for the British; but he possessed little authority, and a rebel named Majju Khān was the real ruler of Morādābād, till the arrival of General Jones's brigade on April 25, 1858, when he was hanged. Early in May the District was occupied by Mr. (afterwards Sir S.) Cracroft Wilson, the Judge of Morādābād, with a body of troops, and order was restored.

Many ancient mounds exist in the District, especially in the Bilārī *tahsīl*, but they have not been explored. AMROHA and SAMBHAL contain some fine mosques and shrines, and the former has also a few Hindu remains. Morādābād city dates only from the seventeenth century.

Population.

There are 15 towns and 2,450 villages in the District. Population is increasing steadily, though variations occur in different areas owing to the vicissitudes of the seasons. The numbers at the four enumerations were as follows: (1872) 1,122,357, (1881) 1,155,173, (1891) 1,179,398, and (1901) 1,191,993. There are six *tahsīls*—MORĀDĀBĀD, THĀKURDWĀRĀ, BILĀRĪ, SAMBHAL, AMROHA, and HASANPUR—each named from its head-quarters. The principal towns are the municipalities of MORĀDĀBĀD, CHANDAUSĪ, AMROHA, and SAMBHAL. The chief statistics of population in 1901 are shown in the following table:—

Tahsīl.	Area in square miles.	Number of		Population.	Population per square mile.	Percentage of variation in population between 1891 and 1901.	Number of persons able to read and write.
		Towns.	Villages.				
Morādābād	313	3	298	245,369	784	+ 1·9	7,668
Thākurdwārā	240	1	261	116,814	487	− 3·6	1,605
Bilārī	333	3	387	216,340	650	− 6·7	5,003
Sambhal	469	3	466	245,886	524	+ 0·1	4,035
Amroha	383	2	508	206,564	539	+ 10·9	4,467
Hasanpur	547	3	530	161,020	294	+ 4·8	2,412
District total	2,285	15	2,450	1,191,993	521	+ 1·1	25,190

About 64 per cent. of the total are Hindus and 35 per cent. Musalmāns, the latter being a high proportion. Christians number 6,103, and Aryas 2,834. Morādābād is the head-quarters of the Arya Samāj in the United Provinces. More than 99 per cent. of the population speak Western Hindī, the prevailing dialect being Hindustāni.

The most numerous Hindu caste is that of the Chamārs (leather-dressers and cultivators), who form more than 21 per cent. of the total. Other important castes are Jāts, 71,000; Rājputs, 62,000; Brāhmans, 44,000; Khāgīs (cultivators), 41,000; and Ahars (agriculturists), 37,000. Jāts are not found in considerable numbers east of this District, while Ahars and Khāgīs chiefly reside in and near it. Bishnoīs, a small caste with 1,600 members, which was originally a religious sect, are hardly found elsewhere in the United Provinces. More than one-third (153,000) of the Musalmāns are so-called Shaikhs, many of whom are descended from converts. The Julāhās (weavers), 33,000; Barhais (carpenters), 23,000; and Telis (oil-pressers), 16,000, are also largely of Hindu origin. The Saiyids, numbering 16,000, are the most considerable of the foreign tribes. About 62 per cent. of the total population are supported by agriculture, more than 6 per cent. by personal services, nearly 5 per cent. by general labour, and 3 per cent. by weaving.

Of the 5,866 native Christians in 1901, 4,780 were Methodists. The American Methodist Church commenced work in 1859, and the American Reformed Presbyterian Church in 1894.

Agriculture.

The Ganges *khādar* is raised in the centre and escapes ordinary floods, but the lower portions are liable to inundation and to over-saturation. This tract chiefly produces wheat, rice, and sugar-cane. Above the *khādar* is a broad sandy tract, consisting of ridges separated by level plains and minor drainage channels. The land is poor and liable to waterlogging in wet years, while crops fail in seasons of drought. Wheat, mixed with barley, and *bājra* are the chief crops. The great central plain is a fertile tract, known as Katehr, which produces wheat, *jowār*, *bājra*, rice, and

sugar-cane. In the Rāmgangā *khādar* floods frequently occur, and the autumn harvest is liable to great loss; but wheat, rice, and sugar-cane are grown. Rice is the principal crop grown in the damp sub-montane area north-east of the Rāmgangā. In good years irrigation is hardly required. A striking feature of the cultivation is the distribution of manure in all parts of a village where sugar-cane is grown, instead of its concentration on the fields near the village site.

The ordinary tenures of the United Provinces are found; but *zamīndāri mahāls* are more common than *pattīdāri*, and *bhaiyāchārā mahāls* are rare. A large number of separate blocks of land are found in the Amroha *tahsīl*, the owners of which have no connexion with the village communities. About half of the *mahāls* in the same *tahsīl* are revenue free, subject to a peculiar quit-rent payable to Government. The main agricultural statistics for 1902–3[1] are shown below, in square miles:—

Tahsīl.	Total.	Cultivated.	Irrigated.	Cultivable waste.
Morādābād . .	313	221	19	41
Thākurdwārā .	240	164	14	38
Bilārī . . .	333	279	34	21
Sambhal . .	469	399	25	26
Amroha . .	383	304	19	34
Hasanpur . .	547	315	16	157
Total	2,285	1,682	127	317

Wheat is the crop most largely grown, covering 599 square miles, or 35 per cent. of the total cultivated area. Rice (152 square miles), *bājra* (260), barley (160), gram (125), and *jowār* (59), are also important food-crops. The most valuable crop is, however, sugar-cane, grown on 70 square miles. Cotton, oilseeds, and hemp (*san*) are the remaining products of importance.

There have been no marked improvements in agricultural practice, and no increase in cultivation in recent years. The area double cropped is probably increasing, and the more valuable crops—wheat, sugar-cane, and rice—are being more largely grown. The cultivation of poppy is spreading. Advances under the Agriculturists' Loans and Land Improvement Loans Acts are rarely taken. The total amounted to only Rs. 56,000 between 1892 and 1904, and Rs. 45,000 of this sum was advanced in two unfavourable seasons.

The cattle bred in the District are of the ordinary inferior type. Something has been done to improve the breed of horses and ponies, and Government maintains one stallion and the District board six, besides three donkey stallions for mule-breeding. The sheep and goats are inferior.

[1] Later figures are not available, owing to settlement operations.

Masonry wells are rarely used for irrigation, except in the south of the rich Katehr tract; but earthen wells lasting for a single harvest can be made in most parts of the District, except in the sandy tract above the Ganges *khādar*. Out of 121 square miles irrigated in 1903–4, wells supplied 89, tanks or *jhīls* 18, and rivers 14. In drier years the rivers are more largely used.

Kankar or nodular limestone is the only mineral product, and is used for metalling roads and for making lime.

Trade and communications.

The chief industry in the District is sugar-refining, which is carried on in many places after native methods. Cotton cloth is woven, especially in the towns, and woollen carpets are made in a few places. Morādābād city is known for the ornamental brassware produced there, and other local industries are the pottery of Amroha and the manufacture of rough glass in the south-west of the District, where *reh* is found. Cotton-weaving is said to be declining. There are four cotton gins and presses at Chandausī, besides one steam press and several hand presses for baling hemp (*san*).

Agricultural products form the chief exports, sugar being the most important, followed by wheat, rice and other grain, and cotton. A good deal of the trade is with Calcutta, but the old trade with Delhi has been revived by a railway extension. Salt, tobacco, metals, and piece-goods are the principal imports. The largest commercial centre after Morādābād is CHANDAUSĪ, and there are several smaller flourishing market towns.

The main line of the Oudh and Rohilkhand Railway passes through the north-east of the District, while the south is crossed by the Bareilly-Alīgarh branch through Chandausī, whence another line runs to Morādābād city. A branch from Morādābād to Ghāziābād on the East Indian Railway traverses the north-west of the District. Another branch from Gajraula to Chāndpur in Bijnor has been surveyed, and a branch of the Rohilkhand and Kumaun Railway is being constructed from Morādābād to Rāmnagar. There are 118 miles of metalled roads and 473 miles of unmetalled roads. The cost of all but 52 miles of the former is met from Local funds, but the Public Works department has charge of all the metalled roads. Avenues of trees are maintained on 119 miles. The main route is that from Bareilly through Morādābād city to the Ganges and on to Meerut. Communications are, on the whole, not good beyond the few metalled roads.

Famine.

The District has suffered repeatedly from scarcity, but has escaped visitations of great severity. In 1803–4 distress was chiefly due to losses caused by the Marāthā invasions and the raids of the Pindāri freebooter, Amīr Khān. The second famine after cession, in 1825, was aggravated by rack-renting, and the

throwing of lands out of cultivation by landholders in view of the approaching settlement. In the famine of 1837–8, Morādābād, like all Rohilkhand Districts, suffered less than the Doāb. The famine of 1860–1 was aggravated by the effects of the Mutiny. Relief works were undertaken, but this was not among the Districts where distress was most intense. Relief was again necessary in 1868–9 and in 1877–8, but the number of workers never became high. In the latest famine of 1896–7 the labouring classes were distressed, but the cultivators suffered comparatively little, and the number on relief was only about 7,000.

Administration.

The Collector is usually assisted by a member of the Indian Civil Service, and by five Deputy-Collectors recruited in India. A *tahsīldār* is stationed at the head-quarters of each *tahsīl*.

There are five District Munsifs. The District Judge, an Additional Judge, and the Sub-Judge have civil jurisdiction over the neighbouring District of Bijnor. Both Bijnor and Budaun are included in the Sessions Judgeship of Morādābād. Serious crime is heavy, and offences against public tranquillity and crimes of violence are especially common. Religious differences, both between Hindus and Musalmāns, and between the Sunni and Shiah sects of the latter, have caused serious riots from time to time. Female infanticide was formerly suspected, but no repressive measures are now necessary.

At cession in 1801 ROHILKHAND was divided into two Districts called Morādābād and Bareilly, the former including, besides its present area, the District of Bijnor, parts of Budaun, Bareilly, and the Rāmpur State. Bijnor was made a separate subdivision called Northern Morādābād in 1817, and Budaun was taken away in 1822. The early settlements were for short periods, and proprietary rights were only gradually recognized, the system being practically a farm to the highest bidder. A feature of the early settlements was the inquiry into the terms on which the very numerous revenue-free grants were held. The District was surveyed between 1831 and 1836, and the first regular settlement under Regulation IX of 1833 was carried out between 1840 and 1843. It involved a summary inquiry into rents actually paid in each village; but the 'assets' assumed as the basis of the assessment were very roughly estimated, and a good deal of reliance was placed on the reports of the *kānungos* as to the annual value of villages. The revenue assessed amounted to 11·5 lakhs, which rose to 12 lakhs during the currency of settlement owing to additions to the District area. In the Thākurdwārā *tahsīl*, which is dependent on rice cultivation, a succession of bad seasons ruined the *zamīndārs*, who had fallen into the clutches of a usurer, and from 1860 to 1863 the *tahsīl* was taken under direct management. Elsewhere the settlement worked

well. The next revision was carried out between 1872 and 1880. Soils were carefully classified, either according to the estimate of their productive value formed by the Settlement officer, or according to their physical characteristics. Rates were then ascertained for application to these. In some parts of the District cash rents were paid, and these were carefully analysed and rent rates were selected, which were applied with necessary corrections to the large area of land paying rent in kind. The revenue fixed was 14·3 lakhs, amounting to half the assumed 'assets.' This has been raised by small alterations to 14·6 lakhs, which falls at an incidence of Rs. 1·3 per acre, varying from R. 0·6 to Rs. 1·8 in different parts. A new revision of settlement commenced in 1905.

The total collections on account of land revenue and of revenue from all sources have been, in thousands of rupees:—

	1880–1.	1890–1.	1900–1.	1903–4.
Land revenue .	13,36	13,88	15,81	14,61
Total revenue .	18,14	22,09	24,48	24,17

There are four municipalities—MORĀDĀBĀD, AMROHA, SAMBHAL, and CHANDAUSĪ—and eleven towns are administered under Act XX of 1856. Beyond the limits of these, local affairs are managed by the District board, which in 1903–4 had an income of 1·6 lakhs and an expenditure of 1·7 lakhs. The expenditure included Rs. 92,000 on roads and buildings.

There are 20 police stations in the District; and the Superintendent of police has a force of 4 inspectors, 100 subordinate officers, and 480 constables. Municipal and town police number 284, and rural and road police 2,285. There is a police training school at Morādābād city. The District jail contained a daily average of 393 prisoners in 1903.

The population of Morādābād is not distinguished for its literacy, and in 1901 only 2 per cent. of the total (4 males and 0·3 females) could read and write. The number of public schools rose from 184 with 5,549 pupils in 1880–1 to 290 with 9,167 pupils in 1900–1. In 1903–4 there were 301 such institutions with 10,794 pupils, of whom 1,280 were girls, besides 293 private schools with 4,122 pupils. Five of the public schools were managed by Government, and 139 by the District and municipal boards. The total expenditure on education was Rs. 50,000, of which Rs. 40,000 was provided by Local funds and Rs. 9,000 from fees. A normal school for teachers is maintained at Morādābād city, which is also the head-quarters of an Inspector and an Inspectress of schools.

There are 13 hospitals and dispensaries, with accommodation for 116 in-patients. In 1903 the number of cases treated was 100,000, of